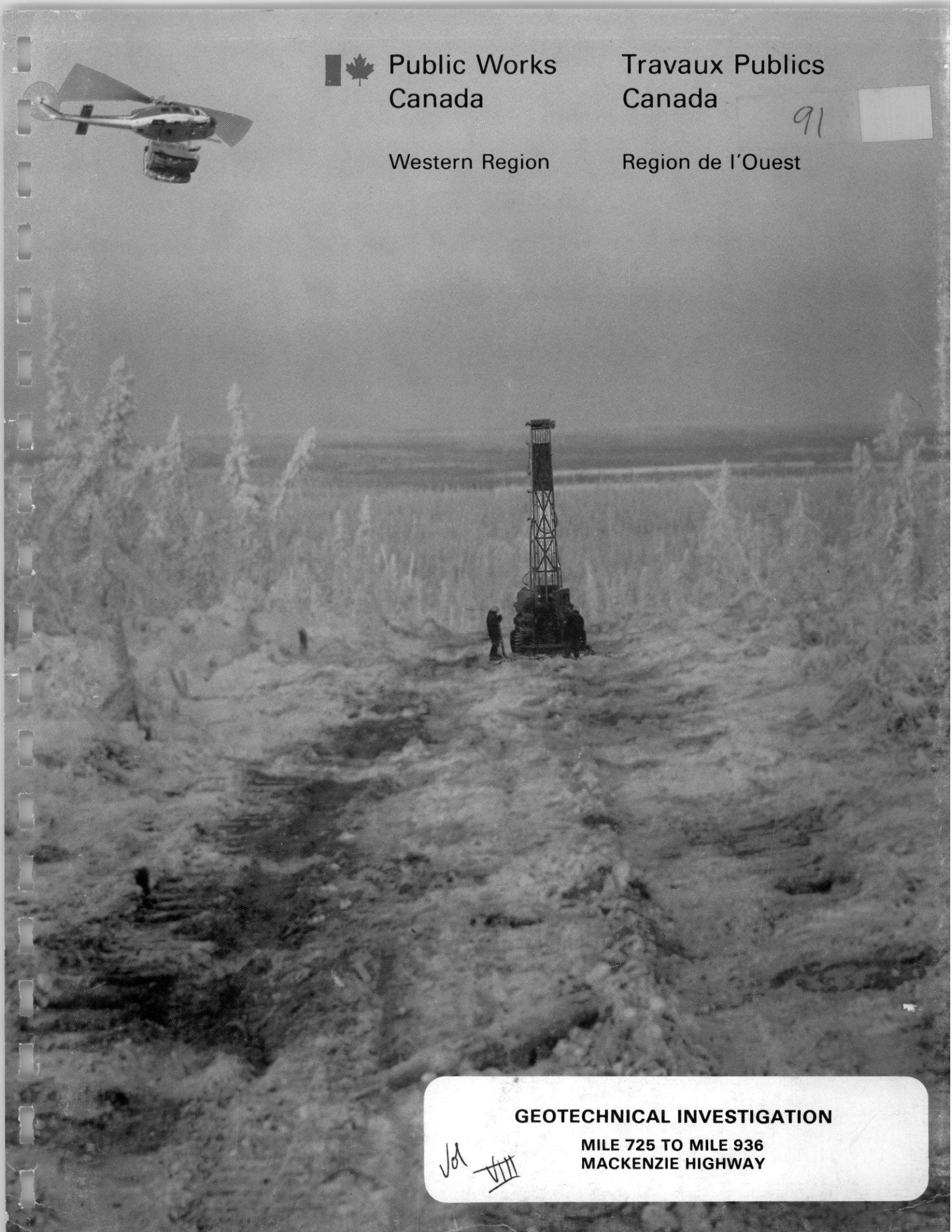


Public Works Canada

Travaux Publics Canada

Western Region

Region de l'Ouest

91

GEOTECHNICAL INVESTIGATION

MILE 725 TO MILE 936 MACKENZIE HIGHWAY

Vol VIII

7

DEPARTMENT OF PUBLIC WORKS

WESTERN REGION

REPORT ON

GEOTECHNICAL INVESTIGATION

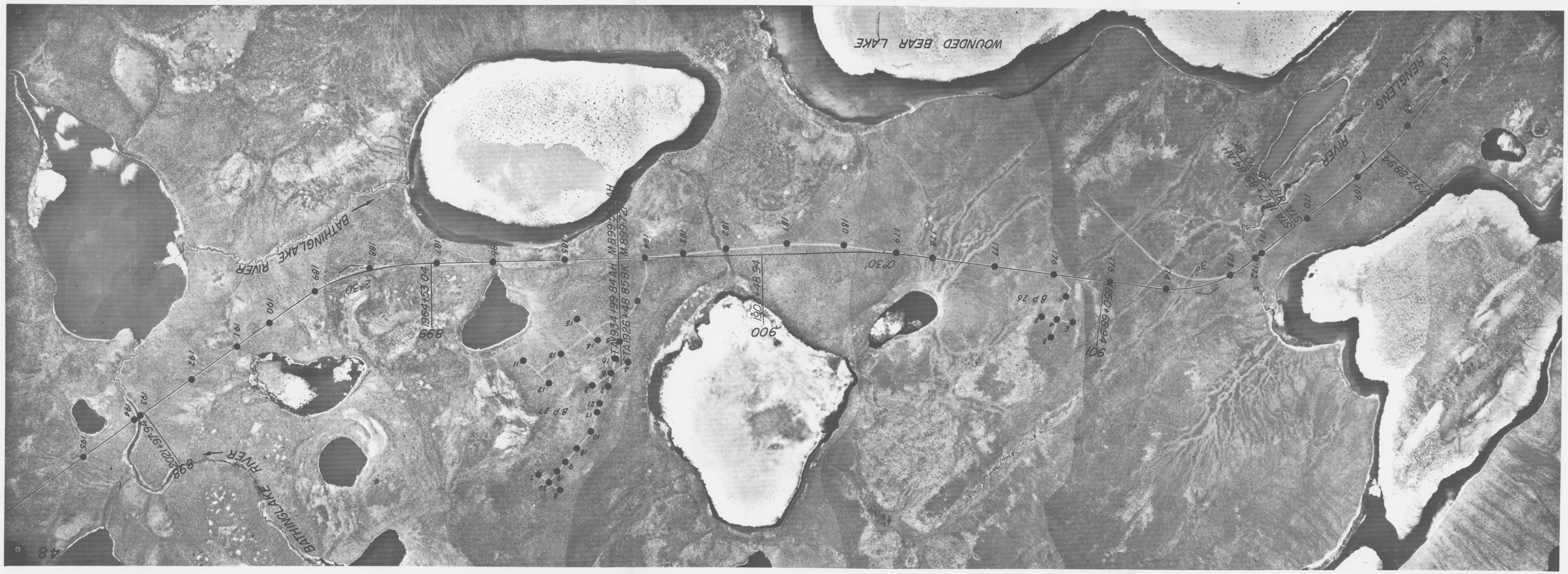
MILE 725 TO MILE 936

MACKENZIE HIGHWAY

VOLUME V111

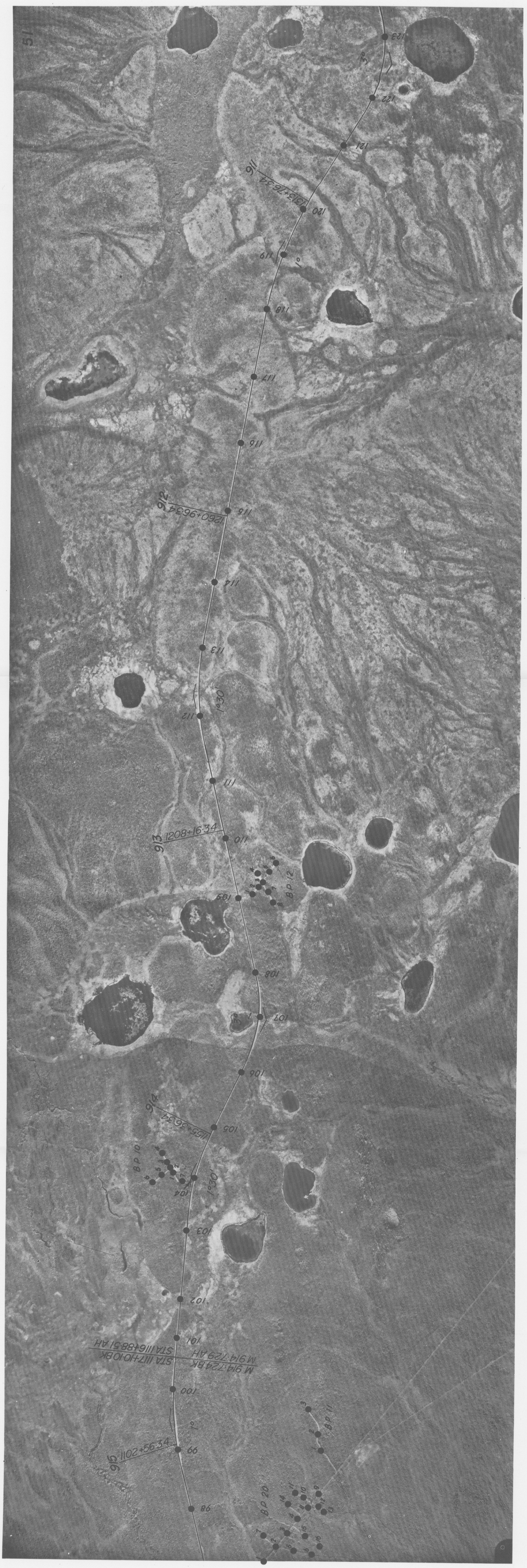
BOREHOLE LOGS AND AIRPHOTO MOSAICS

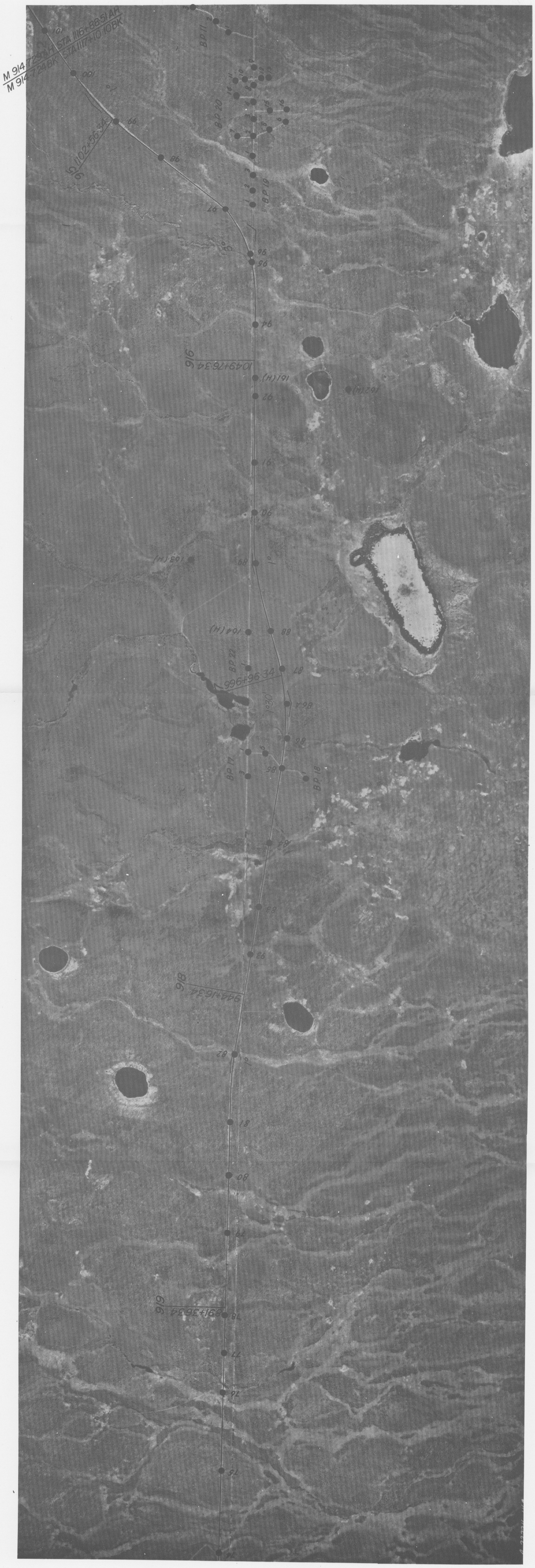
Mile 896 to Mile 936
Airphoto Mosaics #47 to #56
Centerline borehole logs #1 to #206
Borrow pits #1 to #30

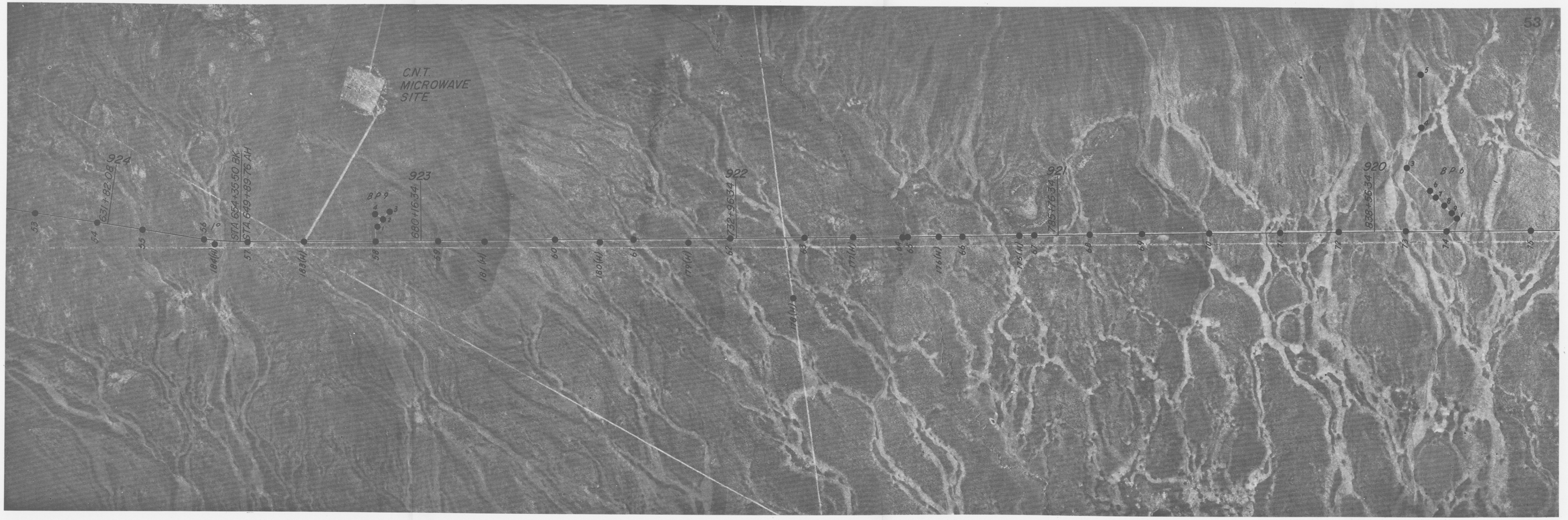

WOUNDED BEAR LAKE
BATHINGLAKE RIVER
RENGLENG RIVER
BATHINGLAKE RIVER
0°30'
2°30'
3°
1964+53.04
1901+48.94
1850+68.94
1797+88.94
1964+53.04
1901+48.94
1850+68.94
1797+88.94
B P 26
B P 27
898
899
900
901
48

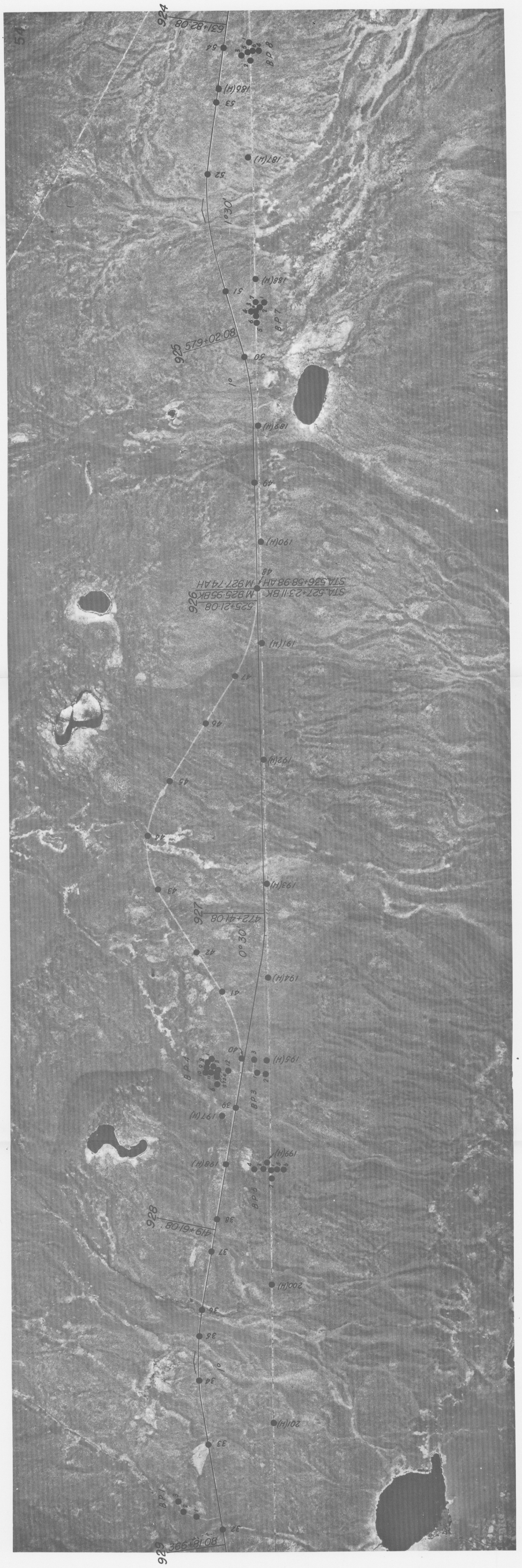

WOUNDED BEAR LAKE
RENGLENG RIVER
FOOT LAKE
TO BP 28
SEE SKETCH OF PIT


FOOT LAKE
906
1588+68.94
907
1535+88.94
908
1483+08.94
909
1430+28.94
910
1366+56.34
STA.1414+37.94 AH
STA.1403+45.33 BK

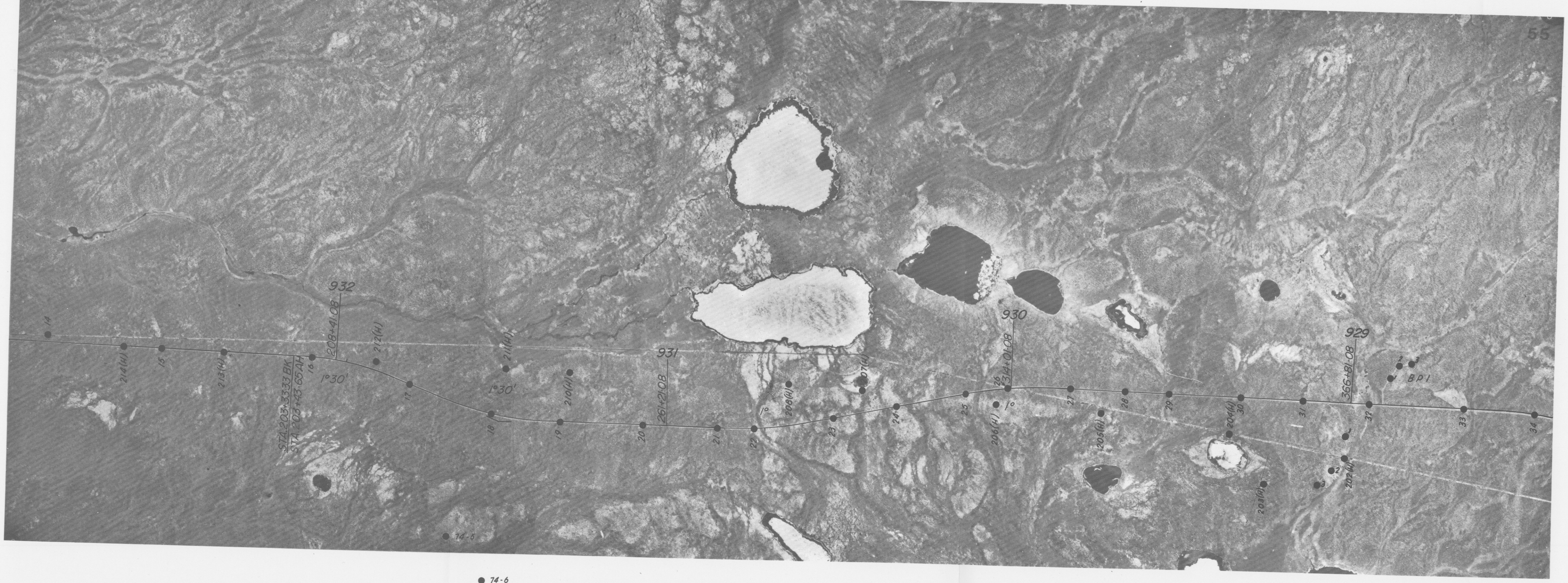

123
122
121
120
119
118
117
116
115
114
113
112
111
110
109
108
107
106
105
104
103
102
101
100
99
98
915 1208+16·34
916 1260+96·34
1315+76·34
1030'
BP 12
BP 10
BP 11
BP 20
STA 1117+10·10 BK
M 914·729 AH
STA 1116+88·51 AH
M 914·724 BK


M 914+72.9 AH STA 1116+88.51 AH
M 914+72.4 BK STA 1117+10.10 BK
1102+56.34
1049+76.34
996+96.34
944+16.34
891+36.34
BP 11
BP 20
BP 19
BP 22
BP 17
BP 18

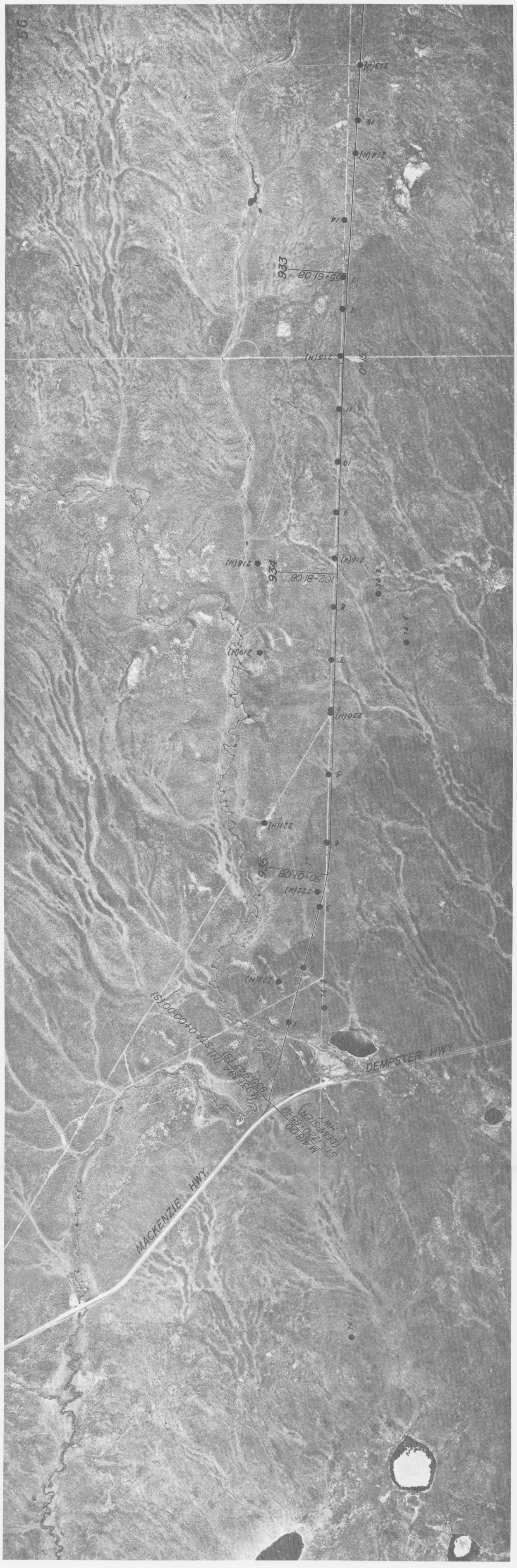

C.N.T.
MICROWAVE
SITE
924
631+82.08
STA 654+35.50 BK
STA 649+89.76 AH
923
680+16.34
922
732+96.34
921
785+76.34
920
838+96.34
BP 9
BP 6
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
184(H)
183(H)
181(H)
180(H)
179(H)
177(H)
176(H)
175(H)
178(H)



924
631+82.08
54
BP 8
186(H)
53
187(H)
52
1°30'
188(H)
51
BP 7
925
579+02.08
50
1°
189(H)
49
190(H)
48
STA 536+58.98 AH
M 927.74 AH
STA 527+23.11 BK
M 925.95 BK
926
525+21.08
191(H)
47
46
192(H)
45
44
193(H)
43
927
472+41.08
0°30'
42
194(H)
41
40
195(H)
BP 4
BP 3
39
197(H)
198(H)
199(H)
BP 5
928
419+61.08
38
37
200(H)
36
35
1°
34
201(H)
33
BP 1
32
929
366+81.08



● 74-6
(MARKED ON PHOTO A 22964-163 : 1"=3000')


56
213(H)
15
214(H)
14
933
55+61·08
13
12
215(H)
0°15'
11
10
9
216(H)
218(H)
934
102+81·08
74-3
8
74-4
219(H)
7
220(H)
6
5
221(H)
4
935
50+01·08
222(H)
3
2
223(H)
1
DEMPSTER HWY
M 931.394 (N) STA 0+00·00 (S)
935.947 (S)
M 418.00
STA 1720+85·10
(DEMPSTER HWY)
MACKENZIE HWY.
74-1


47
BATHINGLAKE R.
BATHINGLAKE RIVER
BP 30
BP 29
BP 27
2°30'
2021+97.94
1964+53.04
1903+48.94
897
898
899
900

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22968-239	CHAINAGE. 26+50	OFFSET. ℄
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE & BIRCH	ELEV.

TEST HOLE 1

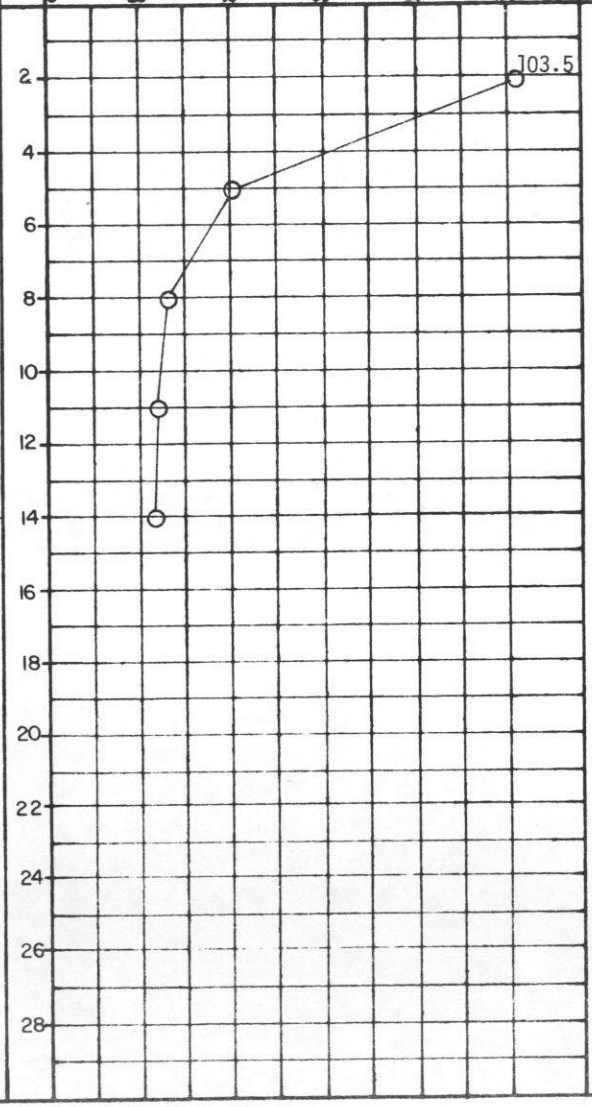
MILE 935

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1½'	F	High Ice
2					CI	CLAY -Silty Trace of Sand Med. plastic Free water to 7'		
4								
6								Vs
8					CL ML	CLAY-SILT MIXTURE -Low plastic — 8'		Moderate Ice
10						— 11'		
12					ML	SILT -Clayey Low plastic		Vc - Vr
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100



GRAIN-SIZE ANALYSIS

DEPTH (FEET)	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Free Water
4					Free Water
8					Moist
11					Moist
14					Wet

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

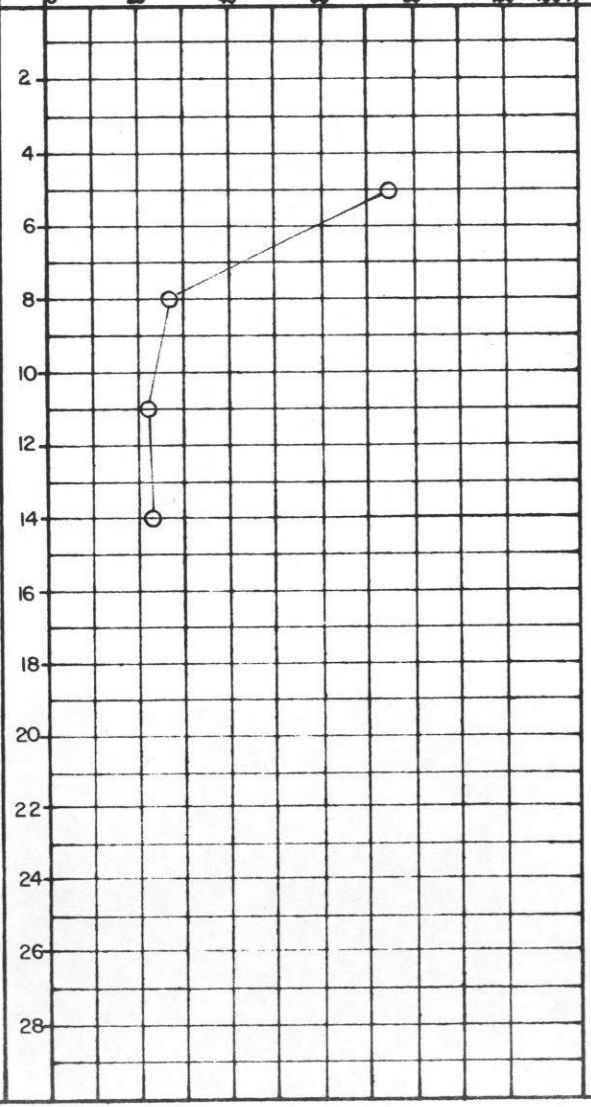
FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22968-239	CHAINAGE. 36+00	OFFSET. D
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. LEVEL	VEGETATION. SPRUCE & BIRCH	ELEV.

TEST HOLE 2

MILE 935

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1½'	F	HIGH ICE - Vs -
2					CI	CLAY -Sandy Silty Med. Plastic		
8					ML	SILT -Clayey Low Plastic 8'		MODERATE ICE Vc - Vr
14						BOTTOM of HOLE - 14' 14'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

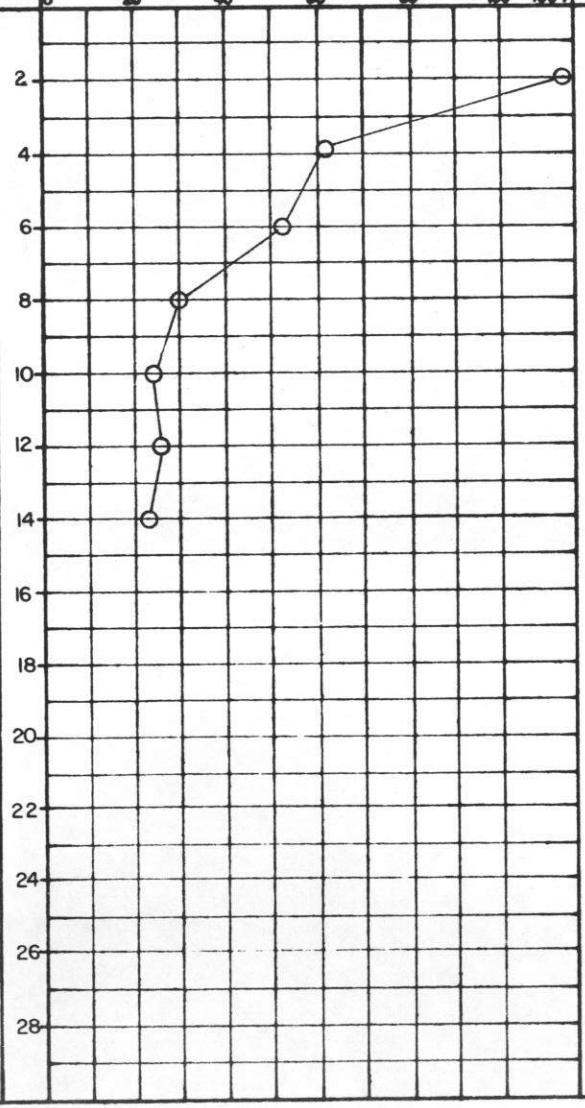
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22968-239	CHAINAGE. 46+00	OFFSET. D	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.	MILE 935

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.5'		HIGH					Free Water	
2					CI	CLAY -Sandy Silty Med. Plastic Free Water to 8'	F	ICE - Vs -					Free Water	
8					ML	SILT -Clayey Low Plastic 14'		MODERATE ICE Vc - Vr					Free Water	
14						BOTTOM OF HOLE - 14'								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 22/11/73 | AIRPHOTO NO. A 22968-239 | CHAINAGE. 46+00 | OFFSET. ℄

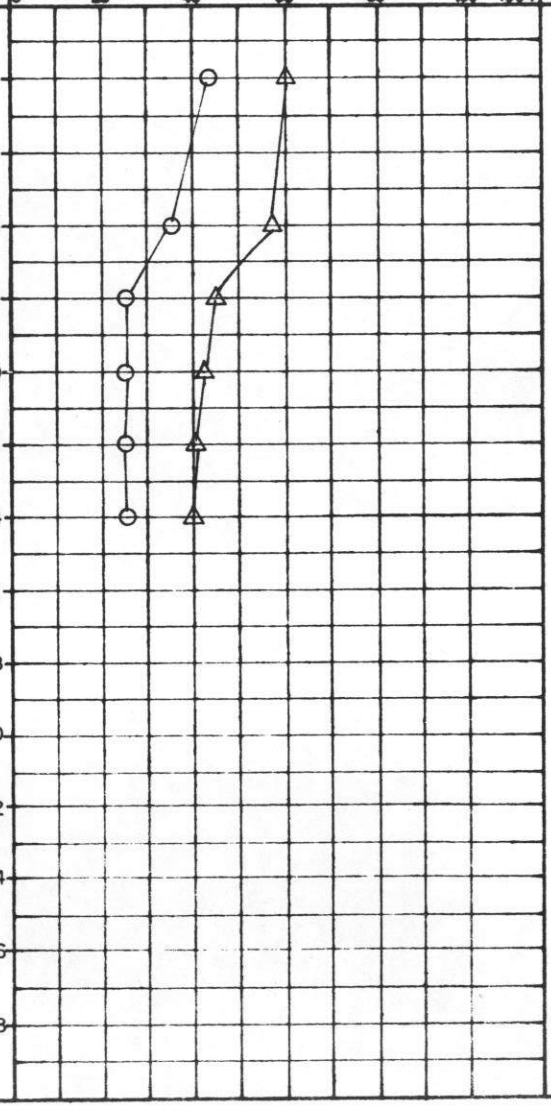
TECH. D. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. SPARSE STUNTED SPRUCE | ELEV.

TEST HOLE 3-A

MILE 935

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.5'		
2						SILT -Clayey Low plastic		Vs
4								
6					ML		F	
8								
10								Nbn
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 56+00	OFFSET. D	TEST HOLE 4
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.	MILE 934

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.5'								
2						CLAY		- Vs -						
4						-Silty							Free Water	
6						Few Shale Fragments								
8					CI	Med. Plastic	F	HIGH ICE						
10								- Vs -						
12														
14						14'								
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

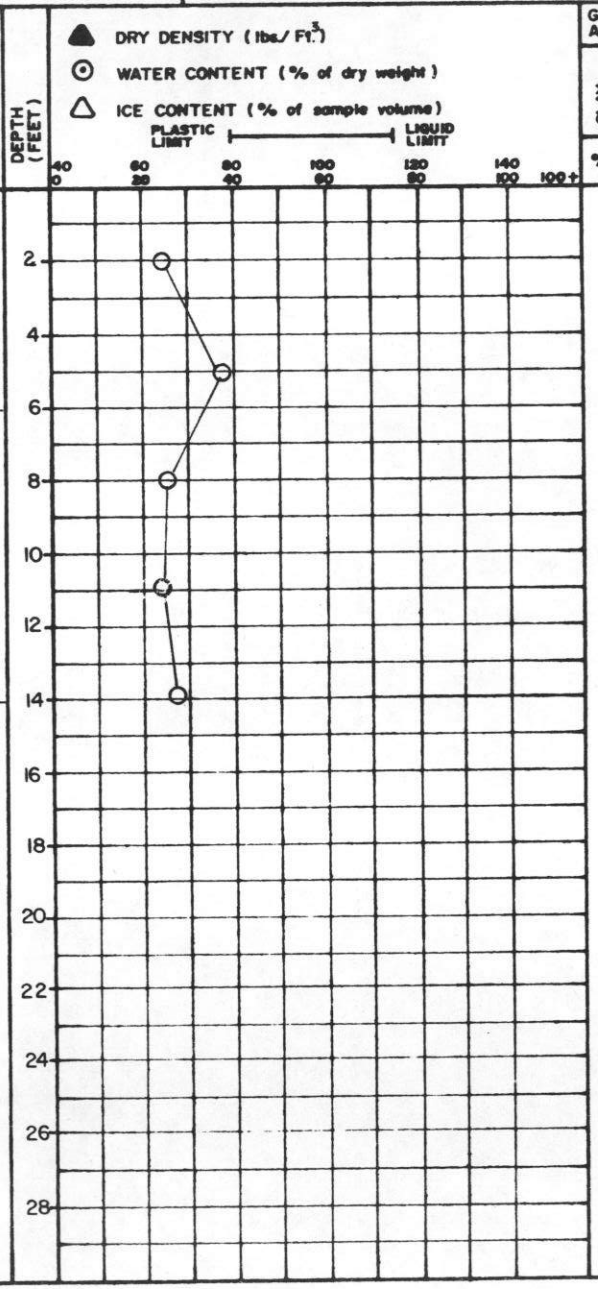
SITE: SECTION D

FIELD ENG. B. 'CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 67+00	OFFSET. ℄
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. LOW AREA	VEGETATION. SPRUCE	ELEV.

TEST HOLE 5

MILE 934

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1.5'	F	HIGH & MODERATE ICE - Vs -
2						CLAY -Sandy Silty Few Shale Fragments Med. Plastic		Vc - Vr
4								
6					CI			MODERATE ICE
8								Vc - Vr
10								
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					
2					
4					
6					
8					
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

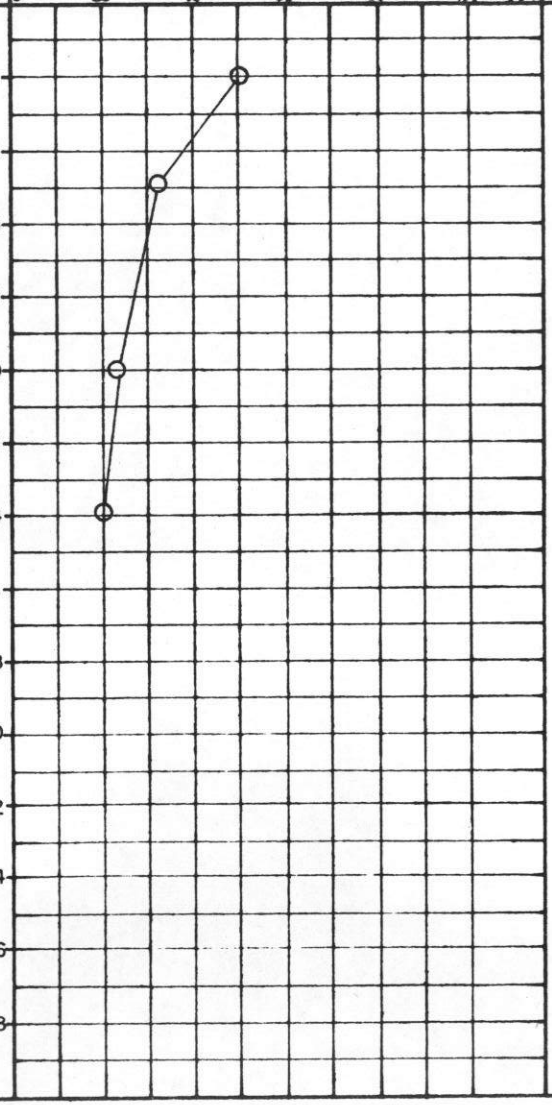
FIELD ENG. B. CONSTANT	DATE DRILLED. 22/4/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 78+50	OFFSET. ℄	TEST HOLE 6
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 934

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1'		HIGH ICE
2						CLAY -Sandy Silty Shale Fragments Pebbles Med. Plastic		- Vs -
4								
6							F	MODERATE ICE
8					CI			
10								- Vr -
12								- Vc -
14						15'		
16						BOTTOM OF HOLE -15'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 87+50	OFFSET. D
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 2"	ELEV.

TEST HOLE 7

MILE 934

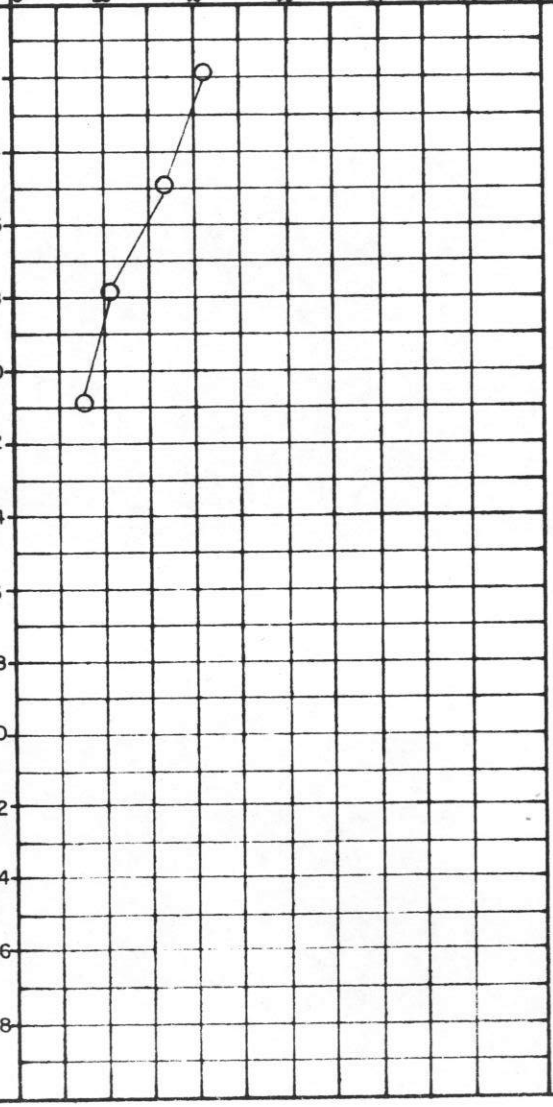
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1'		HIGH ICE - Vs -
2						CLAY - ORGANICS TO 4' - Sandy Silty Pebbles Shale Fragments Med. Plastic		
4								
6					CI		F	MODERATE ICE - Vc - - Vr -
8								
10								
12								LOW ICE Vx
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT

REMARKS

DS-14-5-74 b

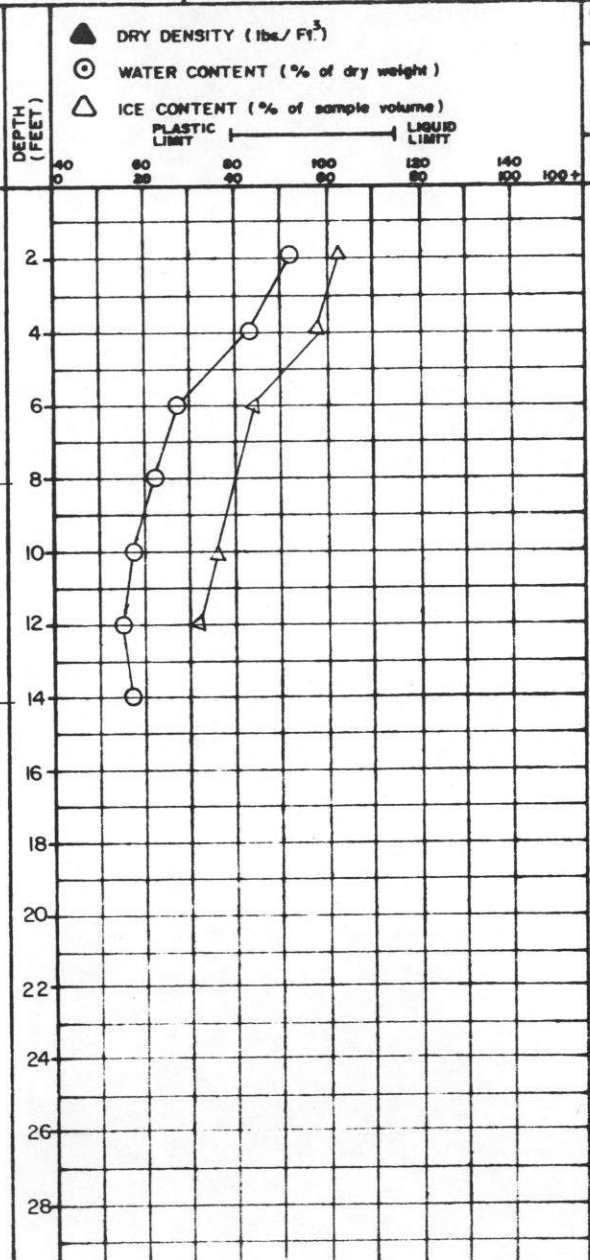
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 97+00	OFFSET. L	TEST HOLE 8
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. STUNTED SPRUCE	ELEV.	MILE 934

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.5'	F	HIGH ICE Vs					Free Water	
2					CL	CLAY -Silty Sandy Shale Chips Low to Medium Plastic							Free Water	
4													Free Water	
6													Moist	
8					CI			MODERATE ICE Vc - Vr					Moist	
10													Moist	
12					CI	CLAY - SILTY SANDY PEBBLES -TILL 12'								
14						14' BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

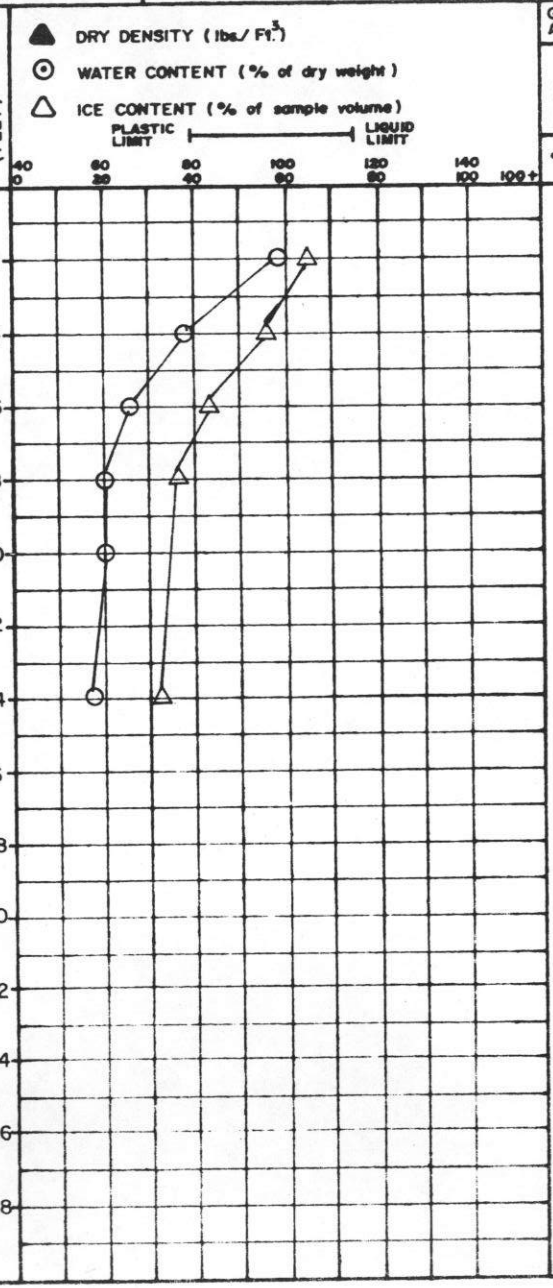
FIELD ENG. B. CONSTANT | DATE DRILLED. 22/11/73 | AIRPHOTO NO. A 22963-203 | CHAINAGE. 97+00 | OFFSET. ℄

TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE | ELEV.

TEST HOLE D8-A

MILE 934

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1½'							Free Water	
2					CL	CLAY -Silty Sandy Shale chips							Free Water	
4					CI	Low to med plastic	F	Frozen Ice Crystals					Wet	
6														
8								Ice Lenses Max ¼"					Moist	
10						— 10'							Moist	
12					CI	CLAY -Silty Sandy Pebbles - Till Medium plastic		Vs						
14						— 14'							Moist	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 113+50	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 9

MILE 933

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.5'	F	MODERATE
2					CI	CLAY -Sandy Silty Med. Plastic		ICE
4								
6								
8								
10						— 10'		Vc - Vr
12					ML	SILT -Clayey Low Plastic		
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION #

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-203	CHAINAGE. 122+00	OFFSET.
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.

TEST HOLE 10

MILE 933

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"	F	HIGH ICE
2						CLAY -Sandy Silty Shale Fragments Pebbles Med. Plastic		- Vs -
4								LOW TO
6								
8					CI			MODERATE ICE
10								- Vc -
12								- Vr -
14								- Vx -
						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 109+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

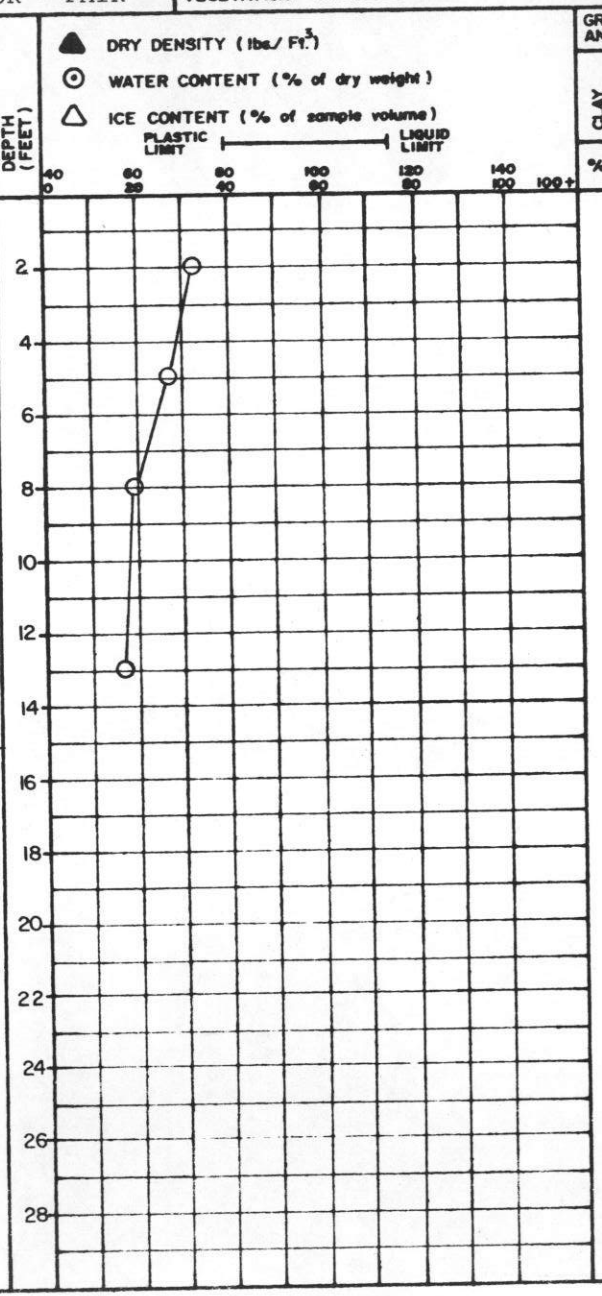
FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-192	CHAINAGE. 132+00	OFFSET. Ⓓ
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR - FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.

TEST HOLE 11

MILE 933

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 8"		
2						CLAY -Silty Sandy Few Pebbles Med. Plastic		MODERATE ICE
4								
6					CI		F	Vc - Vr
8								LOW ICE
10								
12								Vx
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-192	CHAINAGE 149+00	OFFSET. E	TEST HOLE 12
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE 4" MAX.	ELEV.	MILE 933

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 6"		HIGH ICE					Free Water	
2						CLAY -Sandy Silty Pebbles WITH ORG-MAT TO 6' Med. Plastic								
4														
6					CI									
8							F	LOW ICE						
10														
12								Vx						
14						15'								
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-192	CHAINAGE. 155+00	OFFSET. D
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 13

MILE 933

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		HIGH ICE
2					CI	CLAY - ORGANIC TO 4' -Sandy Silty Shale Fragments Med. Plastic	F	- Vs -
4								
6								
8								LOW ICE
10						— 11'		
12						SHALE - SILTY - Hard		Vx
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})

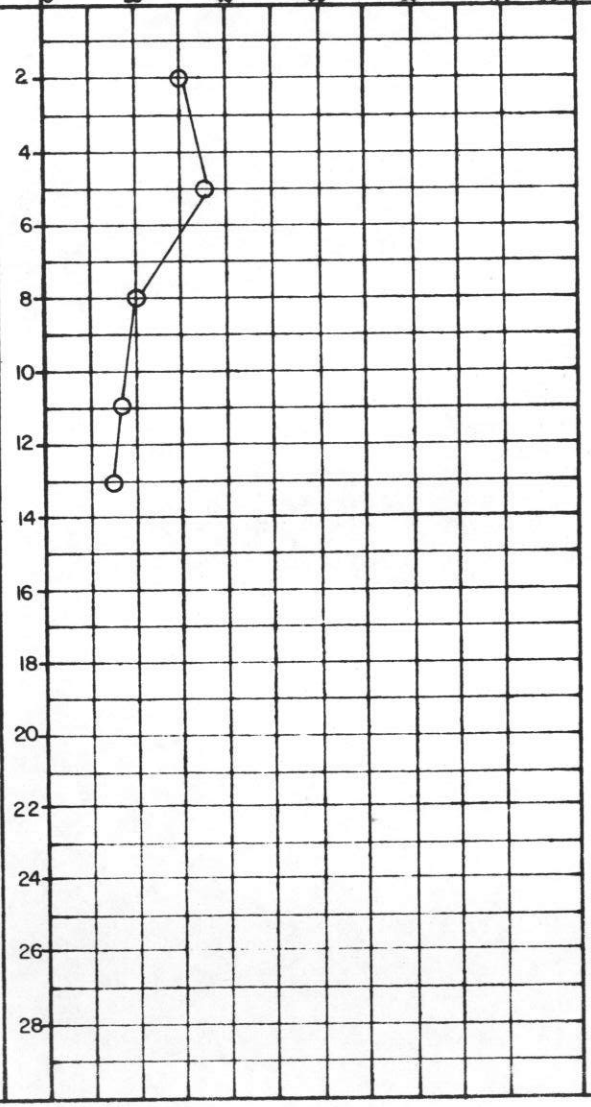
⊙ WATER CONTENT (% of dry weight)

△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160+

2 4 6 8 10 12 14 16 18 20 22 24 26 28



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-192	CHAINAGE. 164+00	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

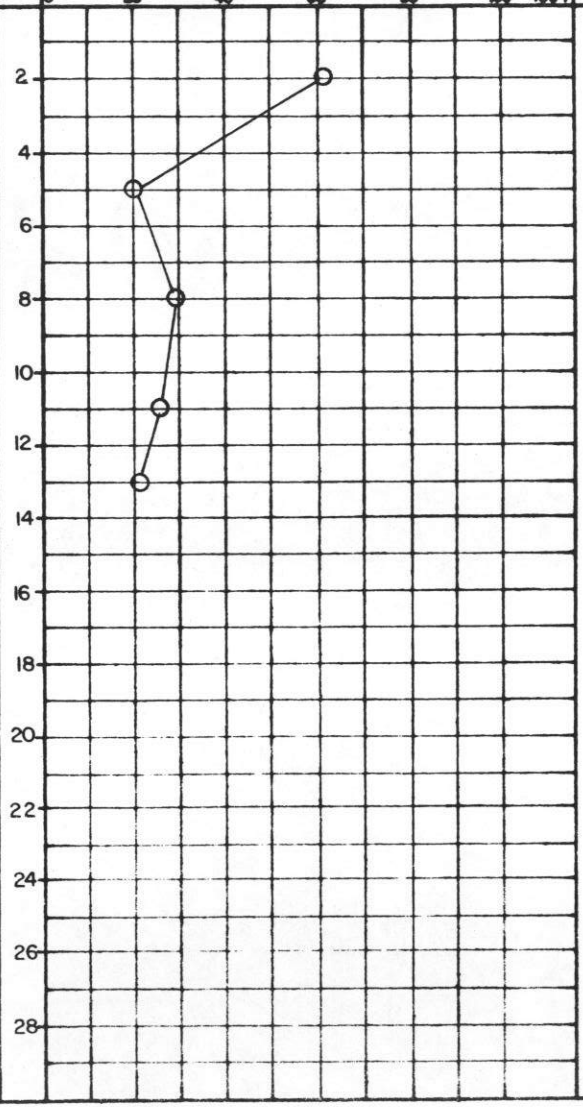
TEST HOLE 14

MILE 932

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 2'	F	HIGH ICE Vs
4					CI	CLAY - SHALE MIXTURE - Sandy Silty Pebbles Med. Plastic		MODERATE ICE
6								
8								
10								Vc - Vr
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	40	60	80	100	120	140	100+
	0	20	40	60	80	100	



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

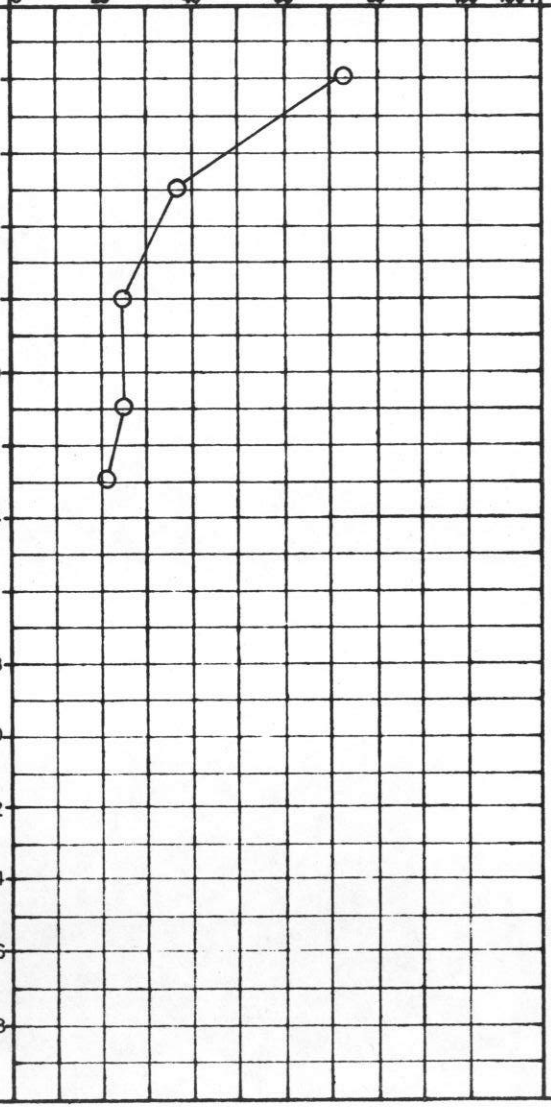
FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-192	CHAINAGE. 182+00	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 15

MILE 932

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'	F	HIGH ICE
2						CLAY -Sandy Silty Shale Fragments Med. Plastic		Vs
4								
6					CI			MODERATE ICE
8								
10								Vc - Vr
12								
14						—14' BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-192	CHAINAGE. 198+00	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 16

MILE 932

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'	F	HIGH ICE
2						CLAY		Vs
4						-Sandy Silty Shale Fragments Med. Plastic		MODERATE
6								
8					CI			ICE
10								
12								Vc - Vr
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160+
0									
2	●								
4	⊙								
6									
8	⊙								
10									
12	⊙								
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL	RELATIVE THAWED MOISTURE CONTENT	REMARKS
	%	%	%	%		
					Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

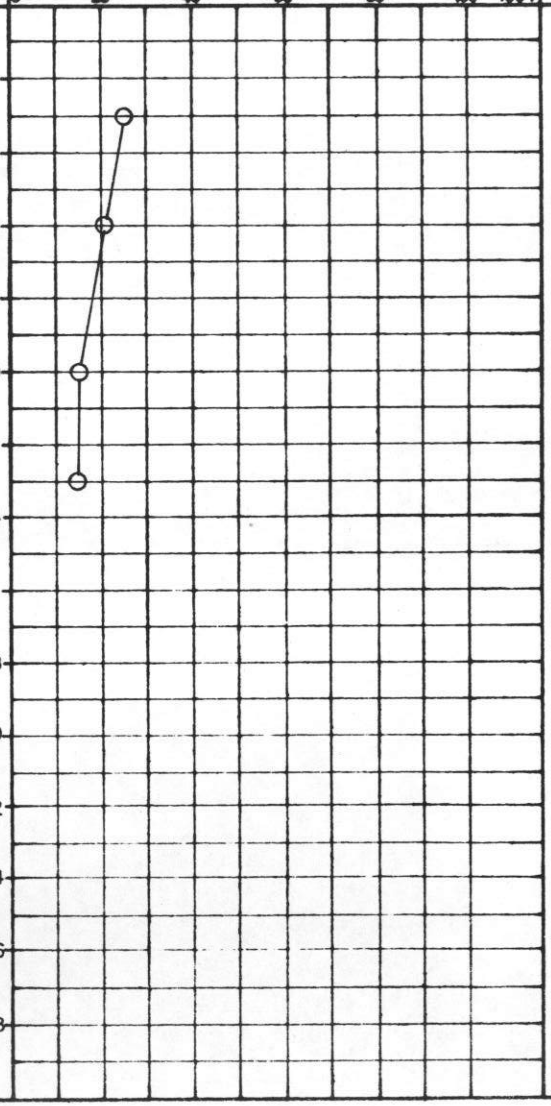
FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-170	CHAINAGE. 219+00	OFFSET. Ɛ	TEST HOLE 17
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 931

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .9'		
2						CLAY -Silty - Sandy Hard Shale Fragments Med. Plastic		MODERATE ICE Vc - Vr
4								
6					CI		F	
8								LOW ICE Vx
10								
12								
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 60 20 80 40 100 60 120 80 140 100 100+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

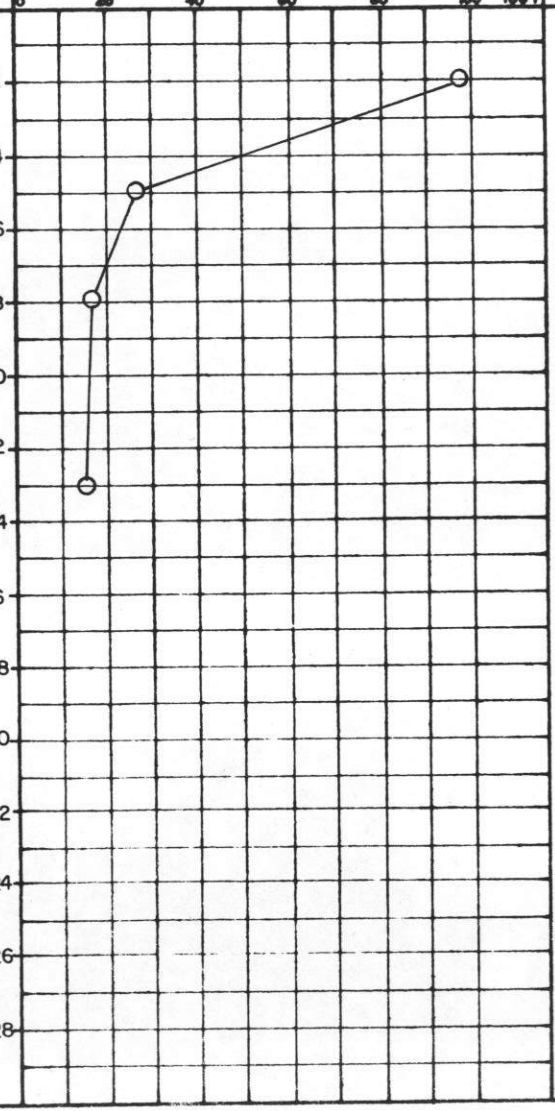
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-170	CHAINAGE. 233+00	OFFSET. Ⓒ	TEST HOLE 18
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 931

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.4'	F	HIGH ICE Vs
2						CLAY -Sandy Silty Shale Fragments Med. Plastic		
4								
6					CI			MODERATE TO LOW ICE Vc - Vr Vx
8								
10								
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

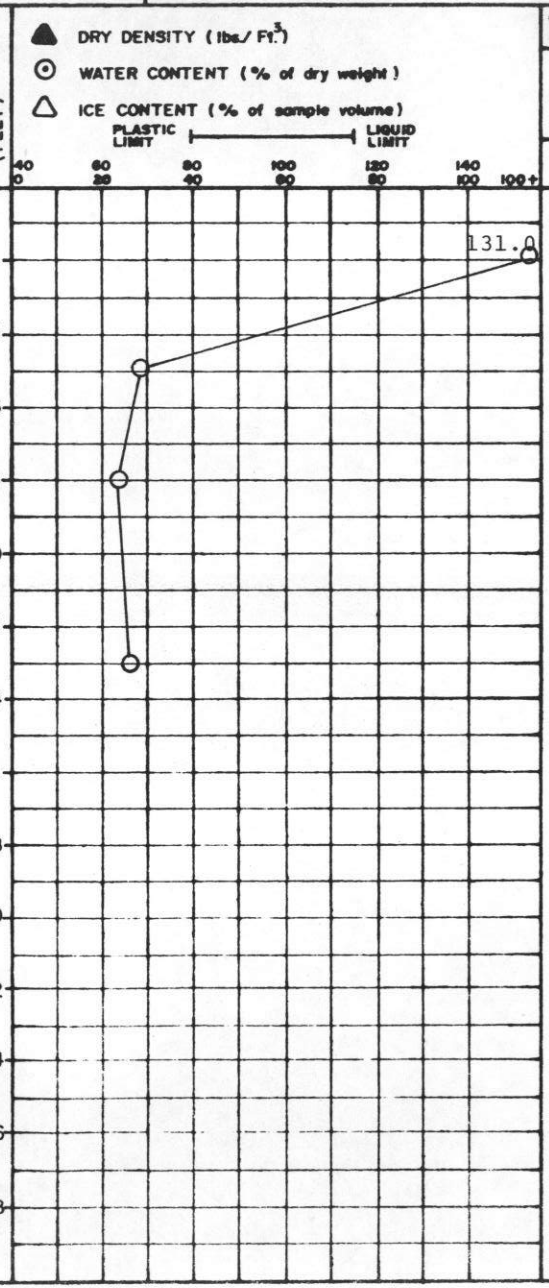
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-170	CHAINAGE. 244+00	OFFSET. ℄	TEST HOLE 19
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 931

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					OH	ORGANIC —1.6'	F	HIGH ICE Vs
4					CI	CLAY -Sandy Silty Shale Fragments Med. Plastic		
6								
8								MODERATE ICE Vc - Vr
10								
12								
14						—15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-170	CHAINAGE. 256+00	OFFSET. b	TEST HOLE 20
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 931

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		
2					CI	CLAY -Sandy Silty Shale Fragments Med. Plastic	F	HIGH ICE - Vs - MODERATE ICE Vc - Vr
14						15'		
16						BOTTOM OF HOLE - 15'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-170	CHAINAGE. 268+00	OFFSET. ℄	TEST HOLE 21
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE & TAMARACK	ELEV.	MILE 930

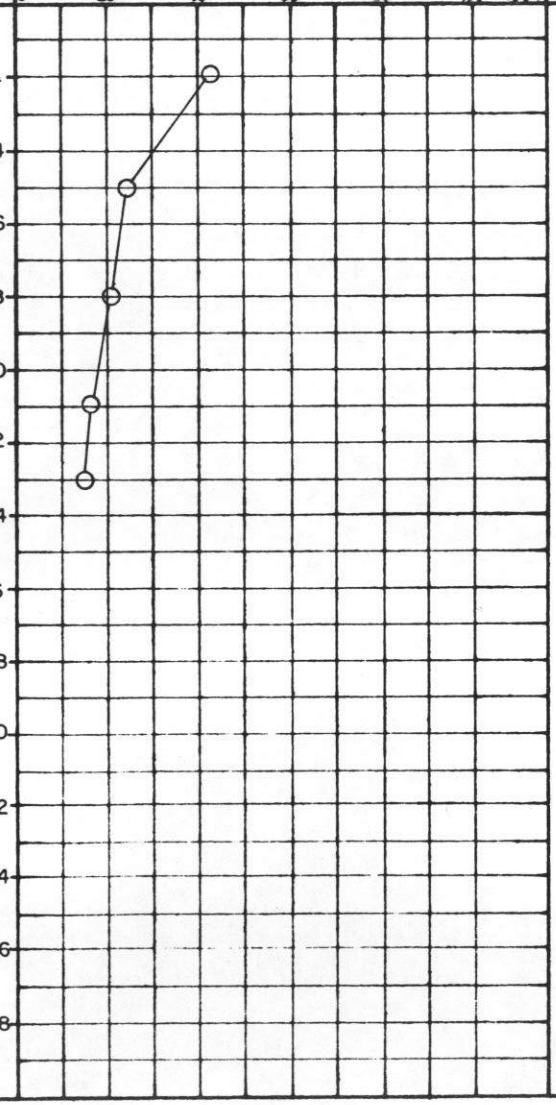
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT 2'	F	HIGH ICE
4						CLAY -Sandy Silty Shale Fragments Med. Plastic		Vs
6					CI			
8								MODERATE TO LOW ICE
10						11'		
12					CI	CLAY -Sandy Silty Med. Plastic		Vc - Vr
14						14'		Vx
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

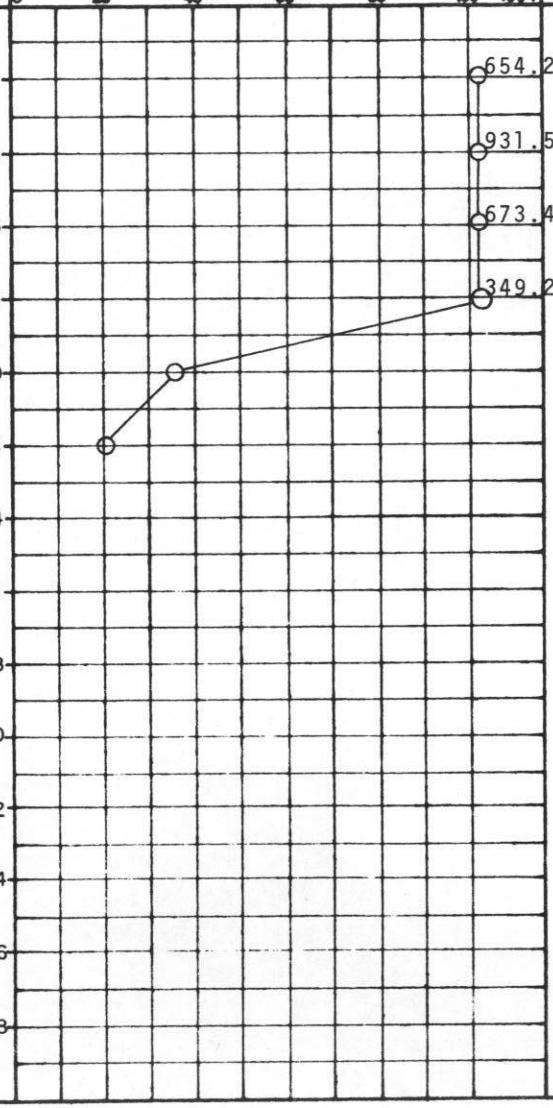
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22963-170	CHAINAGE. 274+00	OFFSET. ℄	TEST HOLE 22
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 930

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0–9'					Pt	PEAT	F	HIGH ICE - Vs -
9'–14'					CI	CLAY -Sandy Silty Shale Fragments Med. Plastic		
14'						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Wet	
4						
6						
8					Wet	
10					Free Water	
12						
14						
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

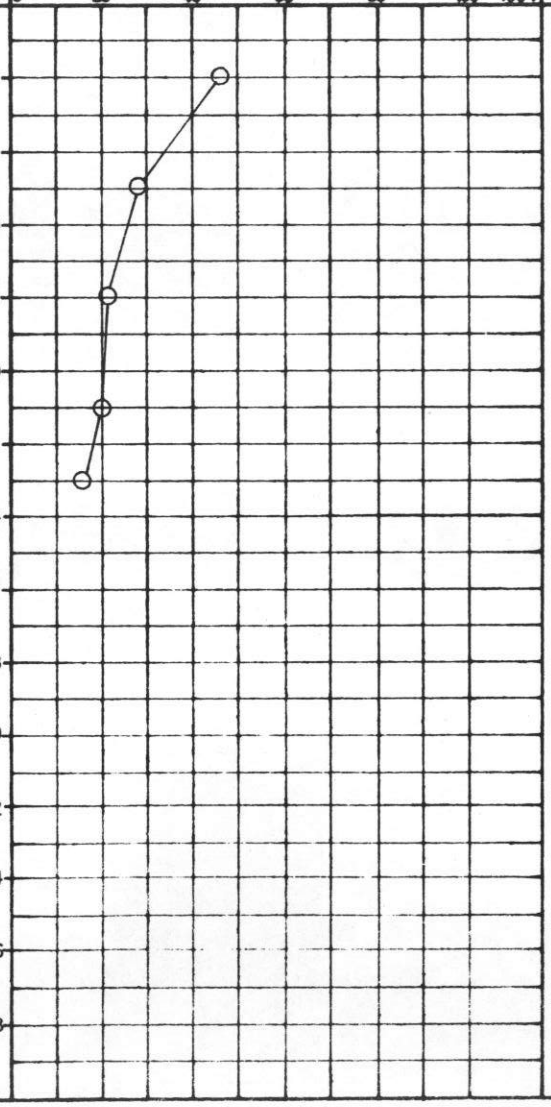
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE 286+00	OFFSET. ℄	TEST HOLE 23
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 930

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1.5'	F	HIGH ICE Vs
2					CI	CLAY -Sandy Silty Shale Fragments Med. Plastic		
4								
6								
8						8'		
10					CI	CLAY -Sandy Silty Med. Plastic		MODERATE ICE Vc - Vr
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 296+00	OFFSET. L	TEST HOLE 24
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 930

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		HIGH ICE Vs
2						SHALE -Sandy Silty		
4						— 5'		MODERATE ICE
6						CLAY -Sandy Silty Pebbles - Till Med. Plastic	F	
8								Vc - Vr
10					CI			LOW ICE Vx
12								
14						— 14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})

⊙ WATER CONTENT (% of dry weight)

△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

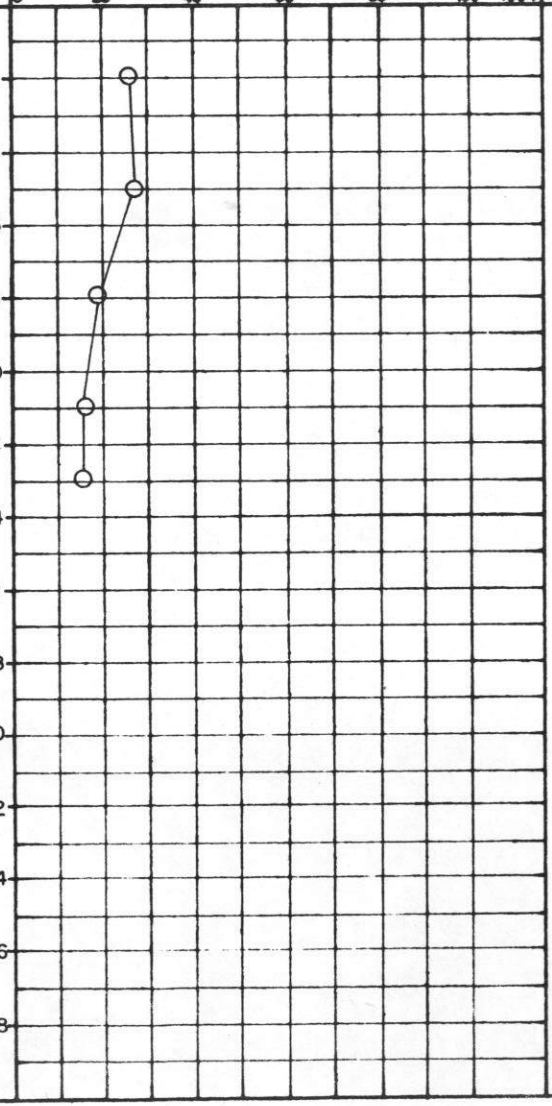
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 306+00	OFFSET. ℄	TEST HOLE 25
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 930

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.5'	F	HIGH ICE Vs
2					CI	CLAY -Sandy Silty Pebbles - Till Med. Plastic		MODERATE ICE Vc - Vr
4								
6								LOW ICE Vx
8								
10								
12								
14						14' BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 314+00	OFFSET. ℄
TECH. PRONYCH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. STUNTED SPRUCE	ELEV.

TEST HOLE 26

MILE 930

REMARKS

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1.1'		
2					CI	CLAY -Sandy Silty Shale Fragments Pebbles Med. Plastic	F	MODERATE ICE Vc - Vr
14						— 14'		
						BOTTOM OF HOLE - 14'		

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 314+00	OFFSET. ℄	TEST HOLE 26-B
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. STUNTED SPRUCE	ELEV.	MILE 930

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		
2					CL	CLAY -Silty Sandy Shale chips		Frozen Ice
4					CI	Low to medium plastic		Crystals
6							F	Vx
8						— 8'		
10					CI	CLAY -Silty Sandy Pebbles - till Medium plastic		Ice Lenses Vs
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Moist	
				Moist	
				Wet	
				Free Water	
				Sat.	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 23/11/73 | AIRPHOTO NO. A 22971-172 | CHAINAGE. 314+00 | OFFSET. ℄

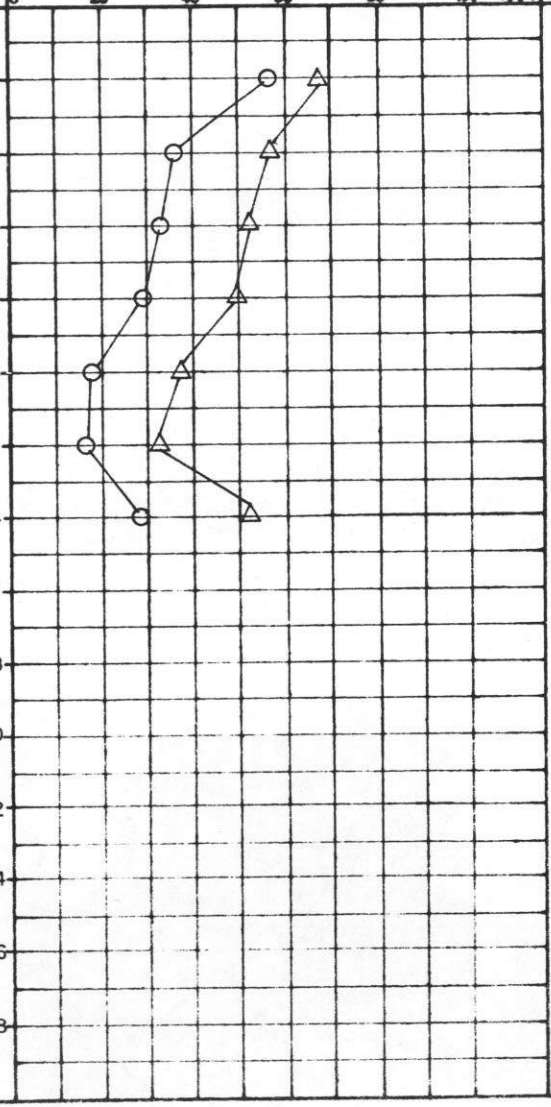
TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. FAIR | VEGETATION. STUNTED SPRUCE | ELEV.

TEST HOLE 26-C

MILE 930

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		
2					CI	CLAY -Sandy Silty Shale chips Medium plastic Free water to 3'	F	Frozen To Bottom Of Hole Ice Lenses Vs
10					CI	— 10' CLAY -Sandy Silty Pebbles - till		Vx Vr
14½						— 14½' BOTTOM OF HOLE -14½'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %

DEPTH (FEET)	RELATIVE THAWED MOISTURE CONTENT
2	Free Water
4	Moist
6	Moist
8	Damp
10	Wet
12	Wet
14	Moist

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

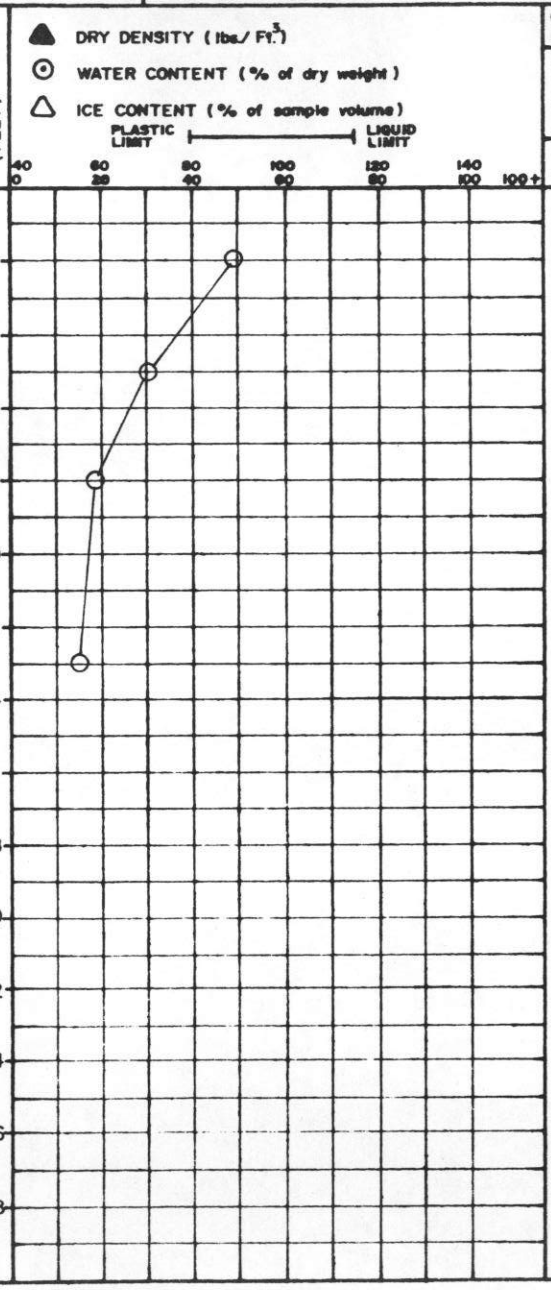
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 323+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 4"	ELEV.

TEST HOLE 27

MILE 929

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.7'		HIGH ICE
2						CLAY -Sandy Silty Pebbles - Till Med. Plastic		
4								
6							F	- Vs -
8					CI			LOW ICE
10								
12								Vx
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

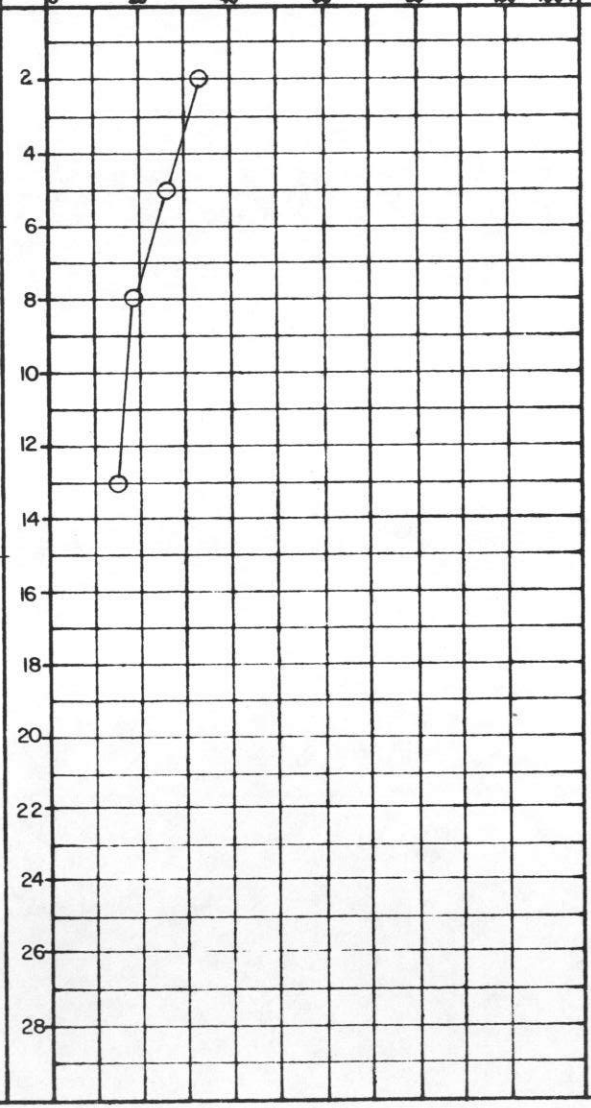
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 22/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 331+00	OFFSET. ℄	
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE 3"	ELEV.	TEST HOLE 28
					MILE 929

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.0'		HIGH ICE					Wet	
2						CLAY -Sandy Silty Pebbles - Till Few Shale Fragments Med. Plastic		Vs						
4														
6							F							
8					CI			MODERATE TO LOW ICE Vc - Vr Vx						
10														
12														
14						15'								
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

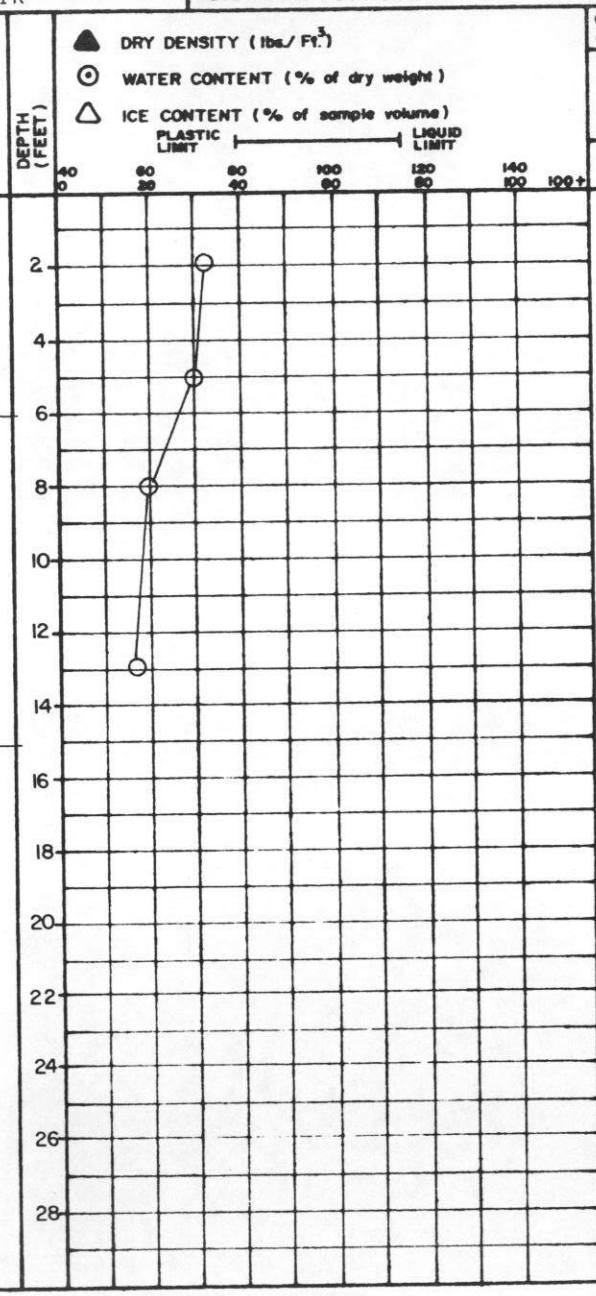
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 338+00	OFFSET. ℄	TEST HOLE 29
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 929

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1.4'		MODERATE ICE						
2						CLAY -Sandy Silty Pebbles - Till Med. Plastic		Vc - Vr						
4														
6														
8					CI		F							
10								LOW ICE						
12														
14						15'		Vx						
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

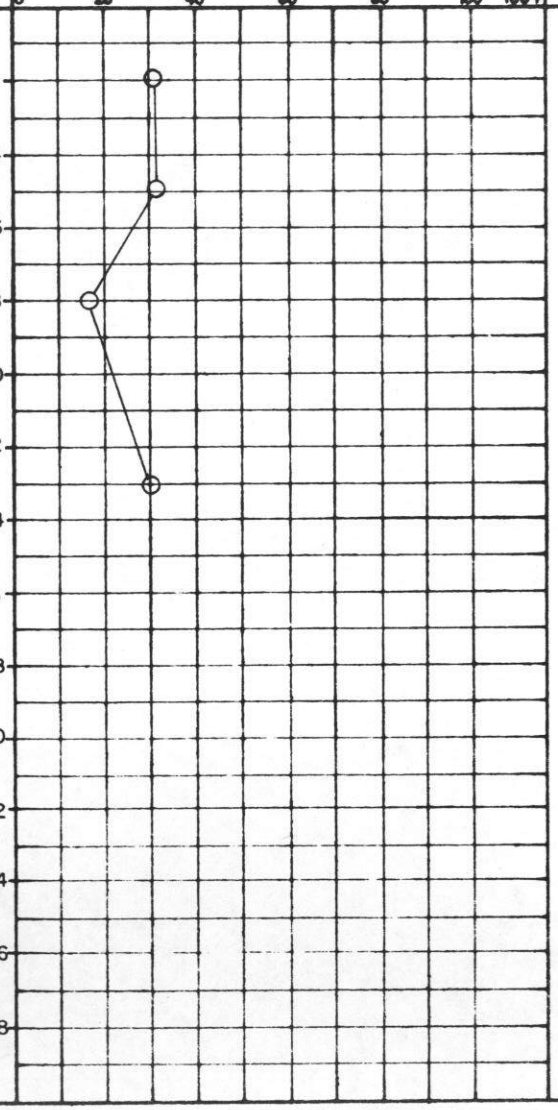
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 349+00	OFFSET. ℄	TEST HOLE 30
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 929

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1.9'		MODERATE
4						CLAY - ORGANIC TO 5'		ICE
6						- Sandy Silty Pebbles Few Shale Chips		
8					CI	Med. Plastic	F	
10								Vc - Vr
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

REMARKS

DS-14-5-74 b

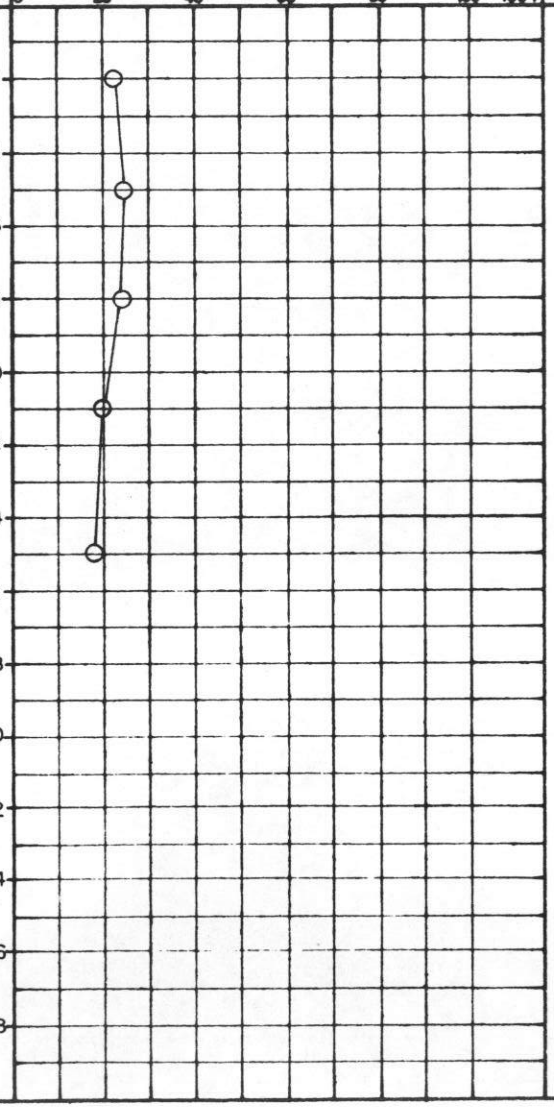
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-172	CHAINAGE. 358+00	OFFSET. L	TEST HOLE 31
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 929

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .8'		
2						CLAY - Sandy - Silty Gravelly		MODERATE
4						MED. PLASTIC		TO
6					CI		F	
8								
10								LOW
12						PEBBLES		ICE -Vx- -Vr-
14								
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

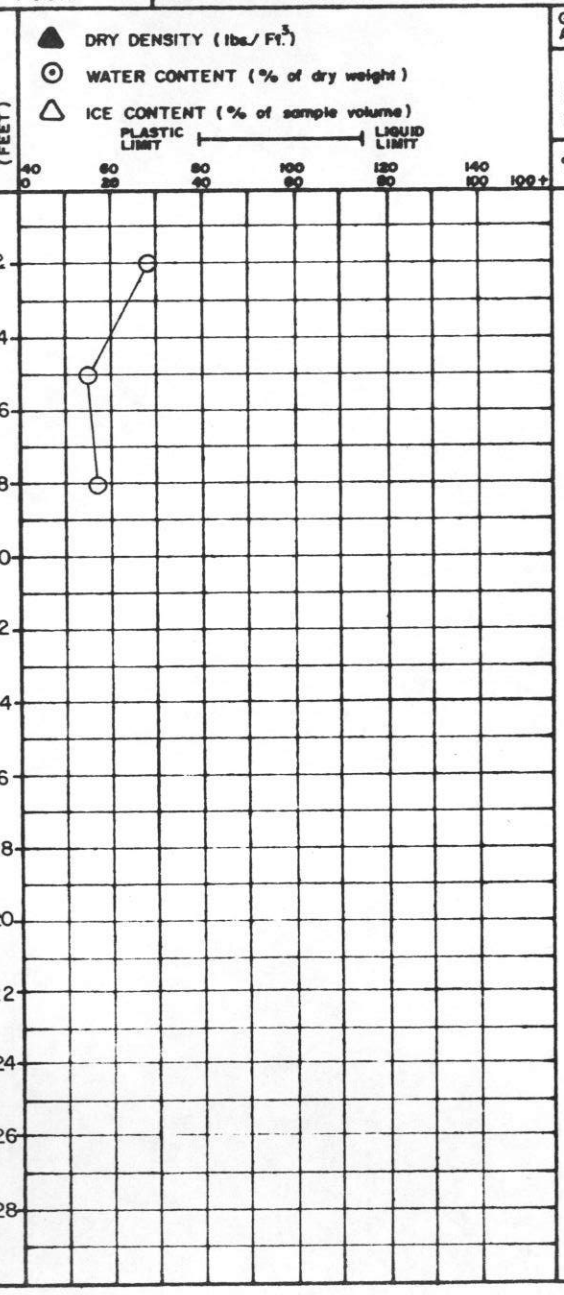
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/12/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 368+50	OFFSET. ℄	TEST HOLE 32
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. VERY POOR	VEGETATION. MARSHY AREA	ELEV.	MILE 928

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 2'		MODERATE ICE
4					CL	CLAY-SANDY SILTY Gravelly Low-Med. Plastic	F	
6					CI			- Vx -
8						— 8'		- Vr -
10						SHALE - SILTY Soft-Med. Hard — 10'		
12						BOTTOM OF HOLE - 10'		
14						WATER IN HOLE		
16						Unable to Drill Deeper		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet-Hole in Bag	
				Wet	
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 383+00	OFFSET. ℄	TEST HOLE 33
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE 5"	ELEV.	MILE 928

DRY DENSITY (lbs./ Ft.^{3}) ▲ WATER CONTENT (% of dry weight) ⊙ ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1'		HIGH ICE - Vs -					Free Water	
2					CL	CLAY - SANDY - Silty Gravelly Low-Med. Plastic							Free Water	
4														
6					CI	Pebbles	F	LOW ICE - Vx -					Damp	
8														
10						Gravelly							Moist	
12														
14						Shale Fragments							Moist	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 393+00	OFFSET. ℄	TEST HOLE 34
TECH. PRONYCH	RIG. MAYHEW - #2	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.	MILE 928

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'	F	HIGH TO Vs
2								
4					CI	CLAY -Sandy Silty Pebbles Organic To 5' Med. Plastic		MODERATE ICE Vc - Vr
6								
8								LOW ICE
10								
12								Vx
14						— 14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Sat.	
2						
4					Wet	
6						
8					Moist	
10					Moist	
12						
14					Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

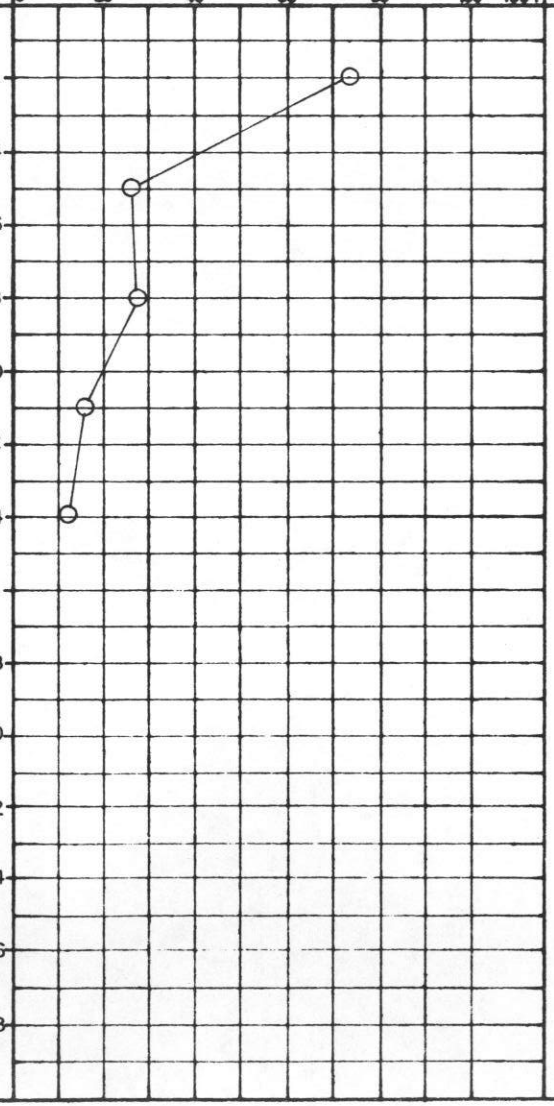
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 430+00	OFFSET. ℄
TECH. PRONYCH	RIG. MAYHEW - #2	SURFACE DRAINAGE. LOW AREA	VEGETATION. SPRUCE & WILLOWS	ELEV.

TEST HOLE 35

MILE 928

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1.1'	F	HIGH ICE Vs	Free Water
2					CI	CLAY -Sandy Silty Med. Plastic			
4								MODERATE ICE	Moist
6									
8						8'		Vc - Vr	Moist
10					CI	CLAY -Sandy Silty Shale Fragments Med. Plastic		LOW ICE	Damp
12								Vx	
13						13'			
14						SHALE 14'			Damp
						BOTTOM OF HOLE - 14'			
16									
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

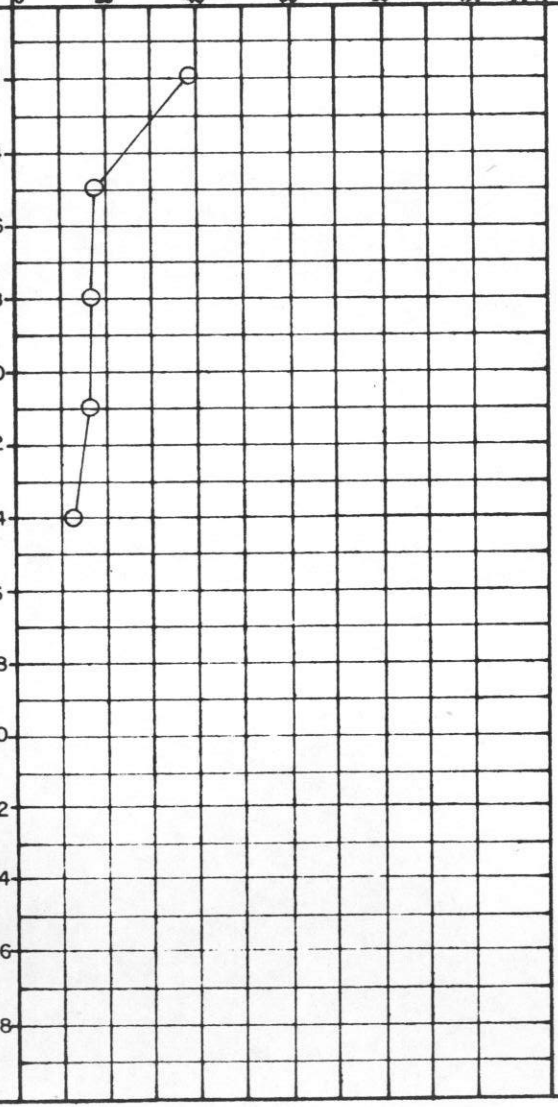
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 407+00	OFFSET. L	TEST HOLE 36
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.	MILE 928

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
2					Pt	PEAT — 2.5'			Moist
4						CLAY -Sandy Silty		LOW ICE	Moist
6									
8					CI	Pebbles & Shale Fragments From 11' Med. Plastic			Moist
10								Vx	Damp
12									
14						— 14'			Damp
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 417+00	OFFSET. L	TEST HOLE 37
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE & TAMARACK	ELEV.	MILE 928

DRY DENSITY (lbs./ Ft.³) ▲ WATER CONTENT (% of dry weight) ⊙ ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — .8'								
2					CL CI	CLAY - Sandy - Silty Shale Chips Hard Low-Med. Plastic	F	MODERATE ICE Vc - Vr					Wet	
4													Wet	
6														
8													Wet	
10								LOW ICE Vx					Moist	
12														
14						15'							Moist	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-104	CHAINAGE. 421+00	OFFSET. ℄	TEST HOLE 38
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 927

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		LOW ICE	Moist	
2						CLAY - Silty - Sandy 40-50% Shale				
4						20%			Moist	
6							F	- Vx -		
8					CI	40-50%		MODERATE ICE	Moist	
10						Med. Plastic			Sat.	
12								Vc - Vr		
14						— 15'			Sat.	
16						BOTTOM OF HOLE - 15'				
18										
20										
22										
24										
26										
28										

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 100+

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-144	CHAINAGE. 441+00	OFFSET. L	TEST HOLE 39
TECH. SAWCHUK	RIG. MAYHEW - 2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 927

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1'		MODERATE					Wet	
2						CLAY - Silty Sandy								
4						Low-Med. Plastic		ICE					Sat.	
6					CL			- Vr -						
8					CI		F	LOW					Moist	
10						Pebbles							Moist	
12								ICE						
14						Sandstone Frags. 15'		- Vx -					Damp	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 109+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

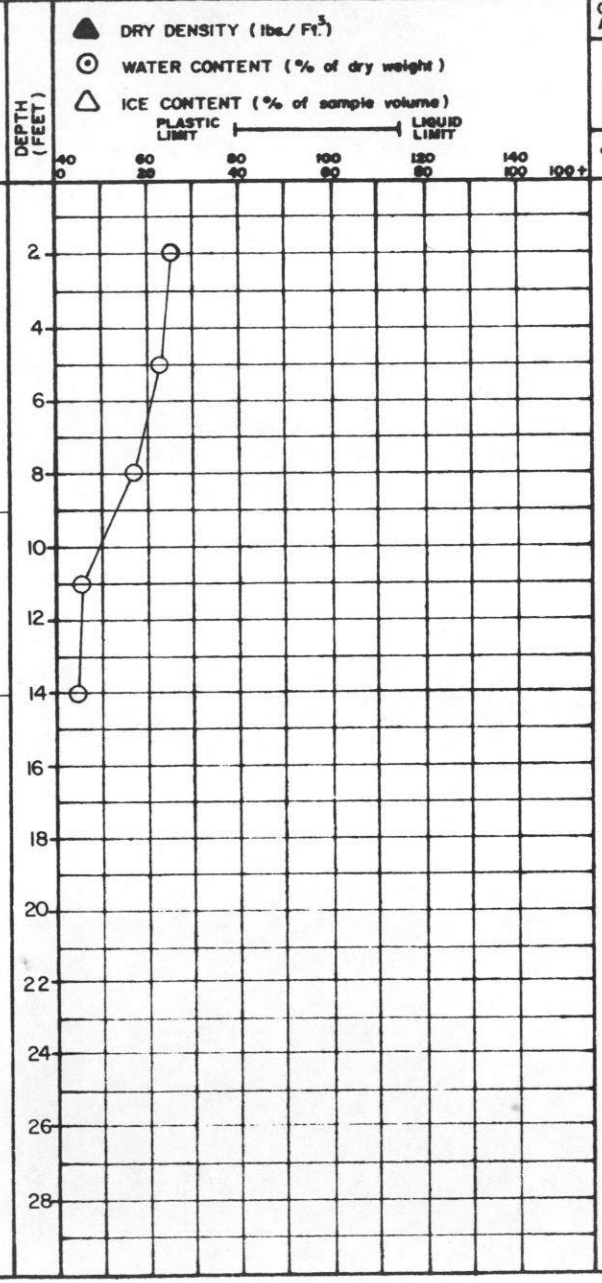
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-144	CHAINAGE. 449+00	OFFSET. L
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.

TEST HOLE 40

MILE 927

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		MODERATE
2						CLAY		ICE
4						-Sandy Silty Shale Fragments at 8'		
					CI	Med. Plastic		
6							F	Vc - Vr
8						— 9'		
10						SHALE -Hard		FROZEN
12								Nbn
14						— 14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Moist	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 23/11/73 | AIRPHOTO NO. A 22971-144 | CHAINAGE. 459+00 | OFFSET. ℄

TECH. D. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. SPRUCE | ELEV.

TEST HOLE 41

MILE 927

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Vr
1.0'								
2					CI	CLAY -Sandy Silty Pebbles Shale layers Medium plastic	F	Vx
4								
6								Nbn
8								Vr
8.5'								
10						SHALE -Hard		Frozen
12								Nbn
14								
14'						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)

⊙ WATER CONTENT (% of dry weight)

△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-144	CHAINAGE. 459+00	OFFSET. L	TEST HOLE 41A
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.	MILE 927

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — 1'		LOW ICE						
2													Damp	
						CLAY & SHALE 40-80% Shale Sandy Silty								
4					CI	Med. Plastic		- Vx -					Damp	
6							F	Vx					Damp	
8						— 8'							Damp	
						SHALE - SILTSTONE -Hard								
10													Humid	
								FROZEN Nbn						
12													Humid	
14						— 14'							Humid	
						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-144	CHAINAGE. 469+00	OFFSET. ℄	TEST HOLE 42
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.	MILE 927

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.0'		LOW ICE - Vx -
2						CLAY -Sandy Silty 20% Shale Frags. Med. Plastic		
4					CI	— 5'		
6						SHALE -Med Hard to Hard	F	
8								
10								FROZEN Nbn
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET) 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Damp	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-72	CHAINAGE. 481+00	OFFSET. ℄	TEST HOLE 43
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 925

DRY DENSITY (lbs./ Ft.^{3}) ▲ WATER CONTENT (% of dry weight) ⊙ ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

40 0 60 20 80 40 100 60 120 80 140 100 100+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT .5'		MODERATE ICE					Wet	
2						CLAY -Sandy Silty Shale Fragments Low-Med. Plastic		Vc - Vr						
4													Wet	
6					CI		F							
8								LOW ICE					Moist	
10								Vx					Damp	
12						13'								
14						BOTTOM OF HOLE - 13'								
16														
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

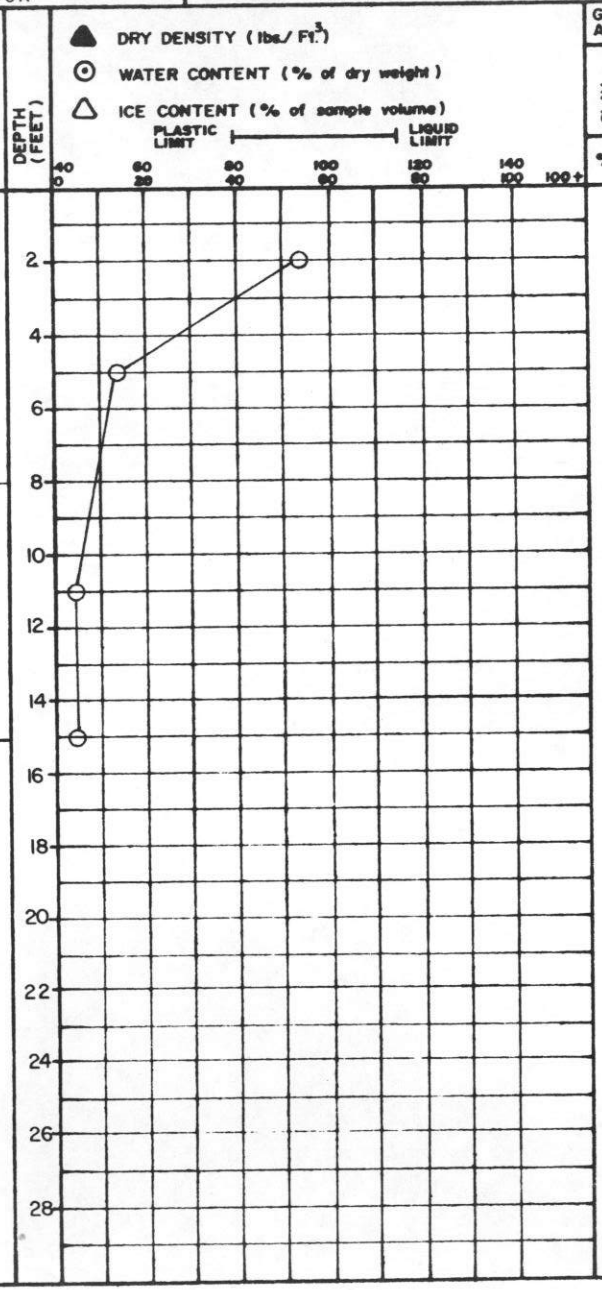
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-144	CHAINAGE. 490+00	OFFSET. L	TEST HOLE 44
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 926

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — .3'		MODERATE ICE
2						CLAY -Sandy Silty Shale Fragments Pebbles Med. Plastic		
4					CI			
6							F	Vc - Vr
8						— 8'		
10						SHALE -Med. Hard		Nbn FROZEN
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Humid	
				Humid	

DS-14-5-74 b

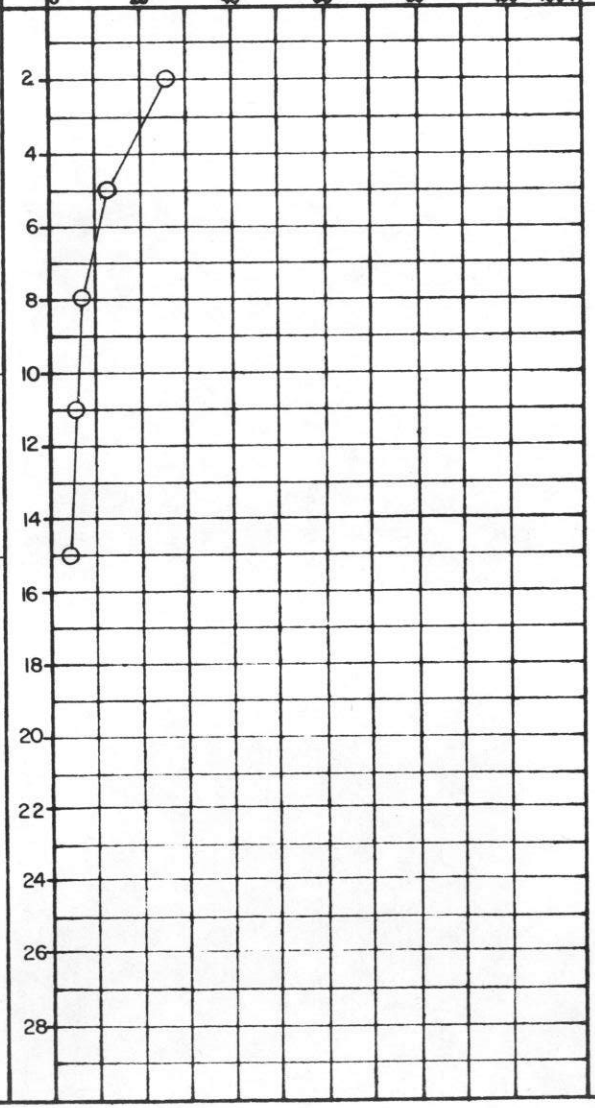
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-144	CHAINAGE. 500+00	OFFSET. ℄	TEST HOLE 45
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR - POOR	VEGETATION. SPRUCE & TAMARACK 6"	ELEV.	MILE 926

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					OH	ORGANIC .7'		LOW ICE - Vx -					Moist	
2					CI	CLAY -Sandy Silty Med. Plastic 4'							Damp	
4					CI	CLAY - 75% Shale Fragments (Soft) 7'	F						DAMP	
6						SHALE -Soft to Hard		FROZEN Nbn					Humid	
8														
10														
12						15'							Humid	
14						BOTTOM OF HOLE - 15'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-72	CHAINAGE. 521+00	OFFSET. ℄	TEST HOLE 47
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 926

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.5'		LOW ICE					Moist	
2						CLAY -Sandy Silty Shale Fragments Med. Plastic								
4					CI			- Vx -					Damp	
6														
8							F						Damp	
10						— 11'							Humid	
12						SHALE -Soft to Med. Hard		FROZEN Nbn						
14						— 14'							Humid	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-72	CHAINAGE. 521+00	OFFSET. ℄	TEST HOLE 47-A
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 926

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT	F	Vs					Wet	
2						2'								
					CI	CLAY -Sandy Silty								
4						4'								
						BOTTOM OF HOLE - 4'								
6						Lost Split Tube Sample in Hole.								
8														
10														
12														
14														
16														
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

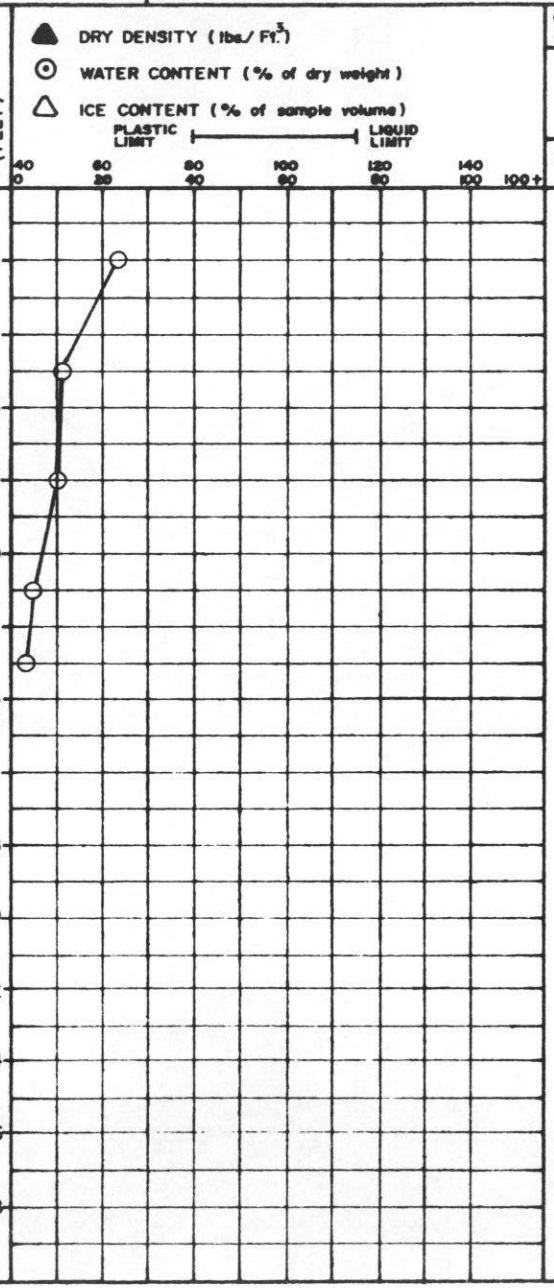
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-72	CHAINAGE. 535+57	OFFSET. L
TECH. BAINE	RIG. MAYHEW - #2	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 48

MILE 925

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.5'		MODERATE ICE Vc - Vr
2						CLAY -Organic to 4' -Sandy Silty		
4					CL	Low to Medium Plastic Siltstone & Shale Fragments	F	- Vx -
6					CI			LOW ICE
8								
10						— 11'		
12						SHALE -Silty -Med. Hard to Hard		FROZEN Nbn
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Moist	
				Moist	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-72	CHAINAGE. 553+50	OFFSET. ℄	TEST HOLE 49
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 925

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 2'		MODERATE ICE					Moist	
4						CLAY -Organic to 4' Sandy Silty Pebbles							Moist	
6					CI	Med. Plastic	F	Vc - Vr						
8						— 8'							Damp	
10						SHALE -Silty Soft to Hard		FROZEN Nbn					Humid	
12													Humid	
14						— 14'								
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22971-72	CHAINAGE. 574+00	OFFSET. L	TEST HOLE 50
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 925

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 2'		HIGH ICE - Vs -
4					CI	CLAY -Sandy Silty Med. Plastic — 5'	F	
6						SHALE -Silty Siltstone Frag. Soft to Hard		FROZEN Nbn
8								
10								
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Damp	
				Damp	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

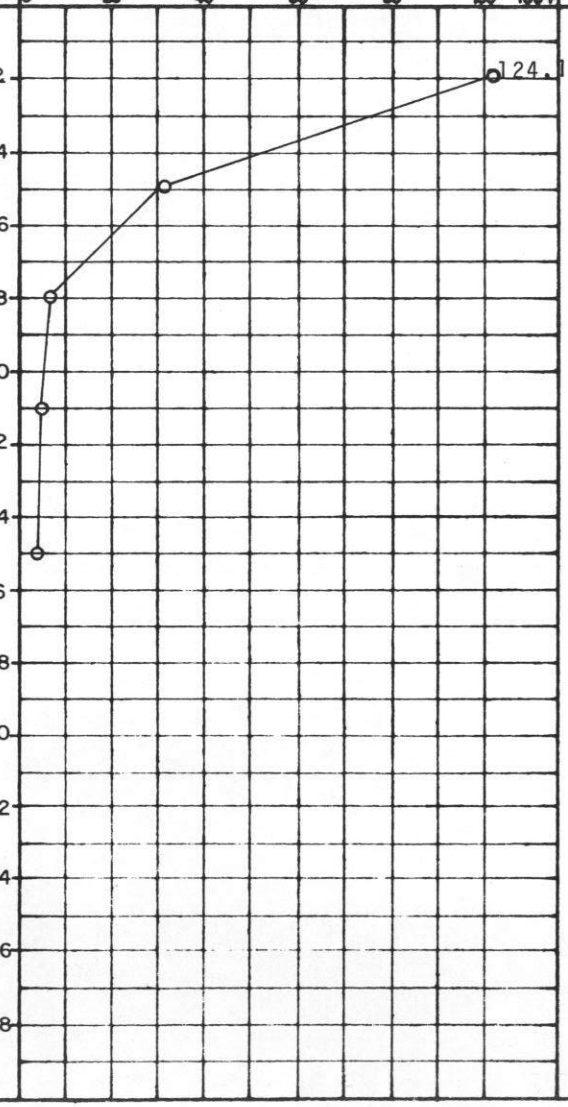
FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-21	CHAINAGE. 597+50	OFFSET. b
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE & TAMARACK	ELEV.

TEST HOLE 51

MILE 924

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .7'		HIGH
2						CLAY		ICE
4					CI	-Sandy Silty 25% Hard Siltstone Frags. Med. Plastic	F	- Vs -
6						7'		
8						SHALE -Soft to Hard Sandstone Frags. From 8'-10		Nbn
10								
12								FROZEN
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 23/11/73	AIRPHOTO NO. A 22971-21	CHAINAGE. 607+50	OFFSET. ℄	TEST HOLE 52
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 924

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — .3'		LOW ICE
2					CI	CLAY -Sandy Silty Gravelly Med. Plastic		- Vx -
4						— 5'		
6						SHALE -Soft to Med. Hard Silty	F	
8								FROZEN
10								Nbn
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2		●							
4			●						
6									
8			●						
10				●					
12									
14			●						
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Damp	
				Humid	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

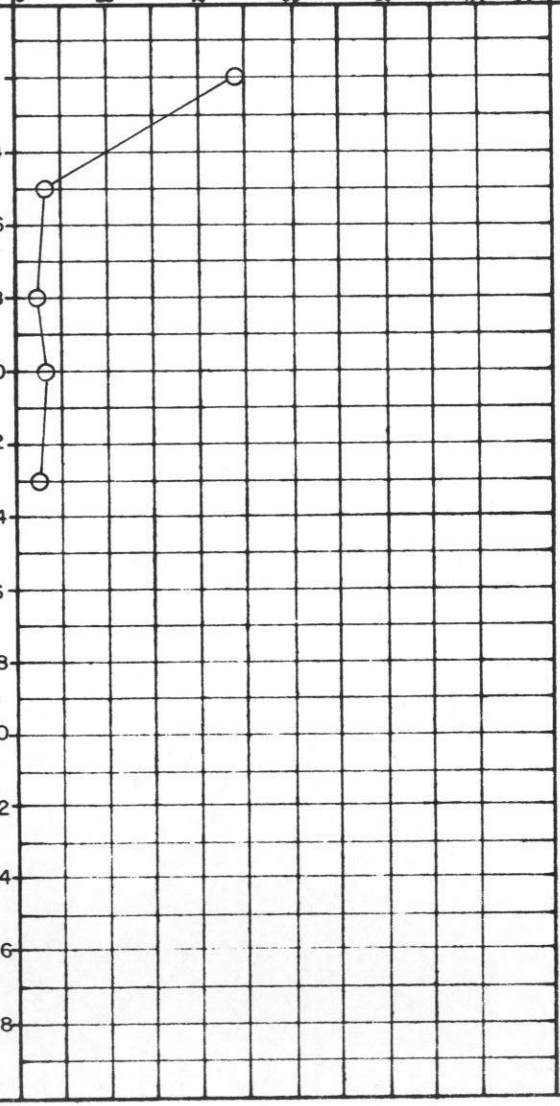
FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22971-21	CHAINAGE. 618+00	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 53

MILE 924

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Pt	PEAT — 2'		HIGH ICE - Vs -					Wet
4					CI	CLAY-Organic Pebbles Sandy Silty — 4'							Damp
6						SHALE -Silty -Soft to Medium Hard	F						
8								FROZEN					Damp
10								Nbn					Damp
12													Humid
14						— 14'							
16						BOTTOM OF HOLE - 14'							
18													
20													
22													
24													
26													
28													



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22971-21	CHAINAGE. 628+14	OFFSET. L	TEST HOLE 54
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 924

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 2'		HIGH ICE - Vs -					Free Water	
4					CI	CLAY -Sandy Silty Pebbles Med. Plastic — 5'							Damp	
6						SHALE -Silty Soft to Medium Hard	F							
8													Damp	
10								FROZEN Nbn					Moist	
12													Damp	
14						— 14'								
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22971-21	CHAINAGE. 637+00	OFFSET. ℄	TEST HOLE 55
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE 4" MAX.	ELEV.	MILE 923

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		MODERATE ICE Vc - Vr
2					CI	CLAY -Organic Silty Med. Plastic — 4'		
4						SHALE -Silty Soft to Medium Hard		
6								
8							F	FROZEN Nbn
10								
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Damp	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

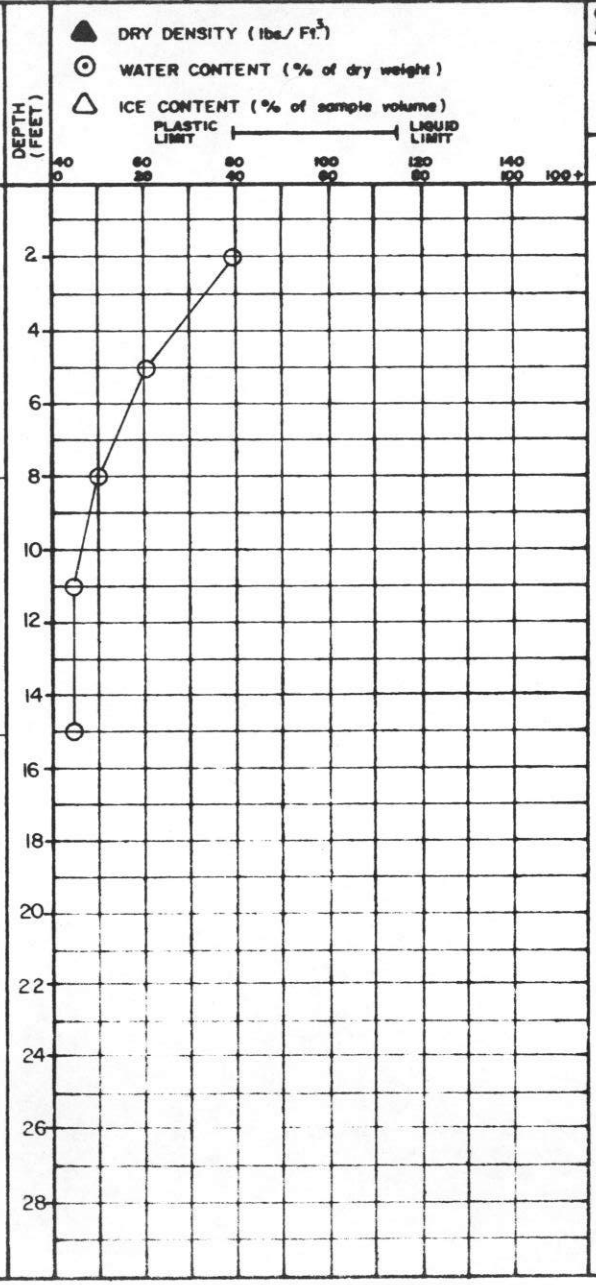
FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-217	CHAINAGE. 648+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.

TEST HOLE 56

MILE 923

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.4'		MODERATE ICE
2					CI	CLAY -Organic to 4' Sandy Silty Pebbles Med. Plastic		
4								
6								Vc - Vr
8						— 8'	F	
10						SHALE -Silty Soft Med. Hard		FROZEN Nbn
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Moist
				Moist
				Moist
				Damp
				Damp

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

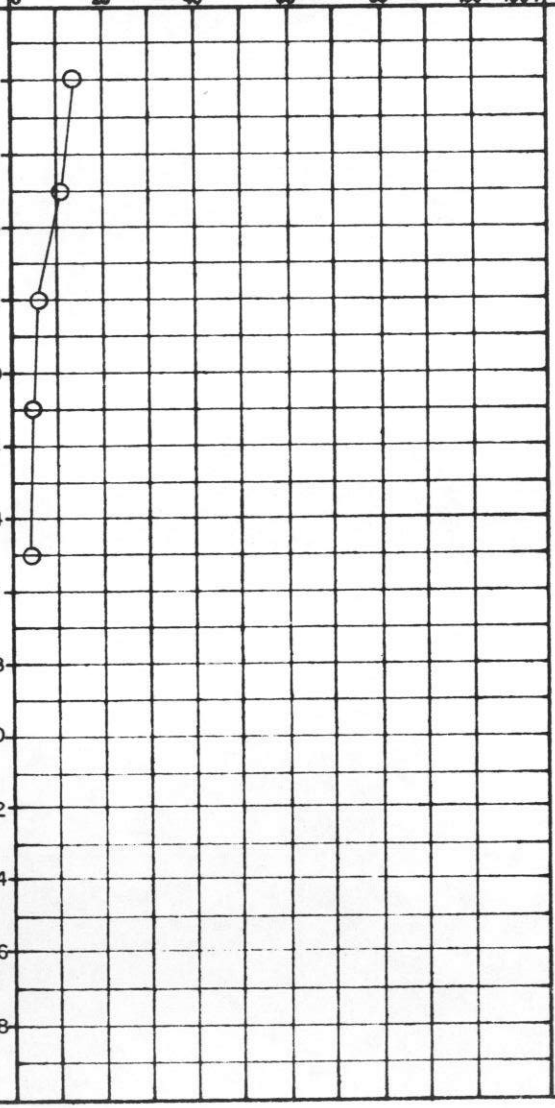
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-217	CHAINAGE. 651+00	OFFSET. ℄	TEST HOLE 57
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 5"	ELEV.	MILE 923

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.9'	F	LOW ICE					Moist	
2														
4					CI	CLAY-Sandy Silty Pebbles Med. Plastic 5'		Vx					Moist	
6						SHALE -Soft-Hard Silty Soft							Humid	
8								FROZEN						
10								Nbn					Humid	
12														
14						15'							Humid	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



DS-14-5-74 b

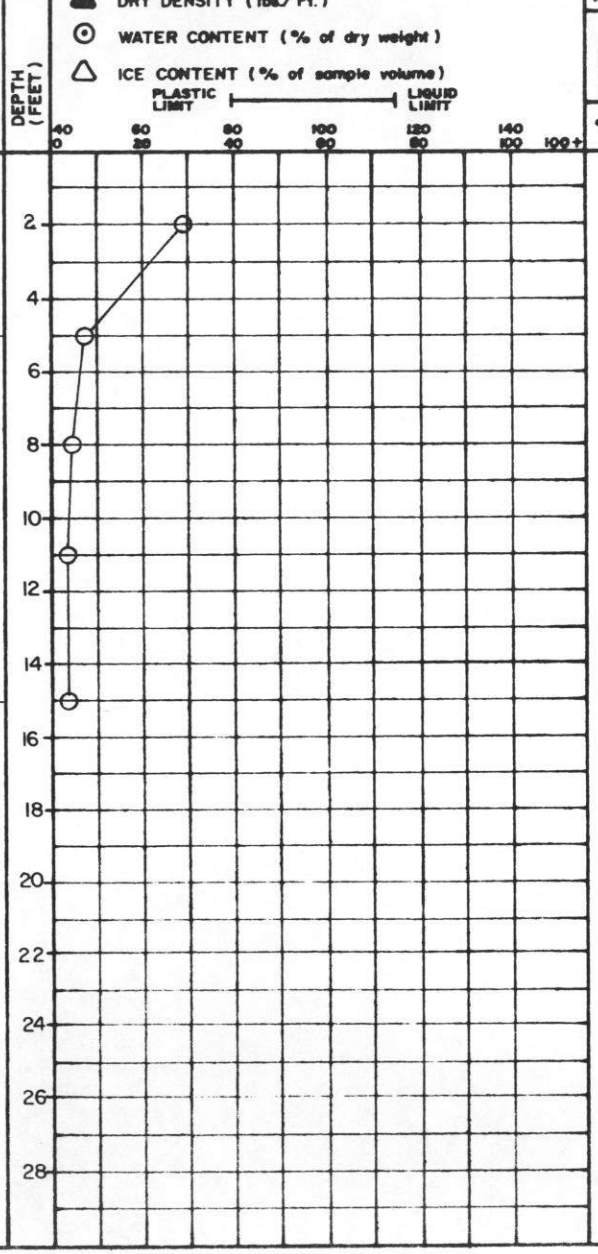
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-217	CHAINAGE. 671+00	OFFSET. ℄	TEST HOLE 58
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 923

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1.7'		LOW ICE - Vx -
4					CI	CLAY-Sandy Silty Pebbles Med. Plastic		
6						— 5'	F	
8						SHALE-Silty Soft-Med. Hard		FROZEN
10								
12								Nbn
14						Soft — 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Moist	
				Humid	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 24/11/73 | AIRPHOTO NO. A 22970-217 | CHAINAGE. 683+00 | OFFSET. ℄

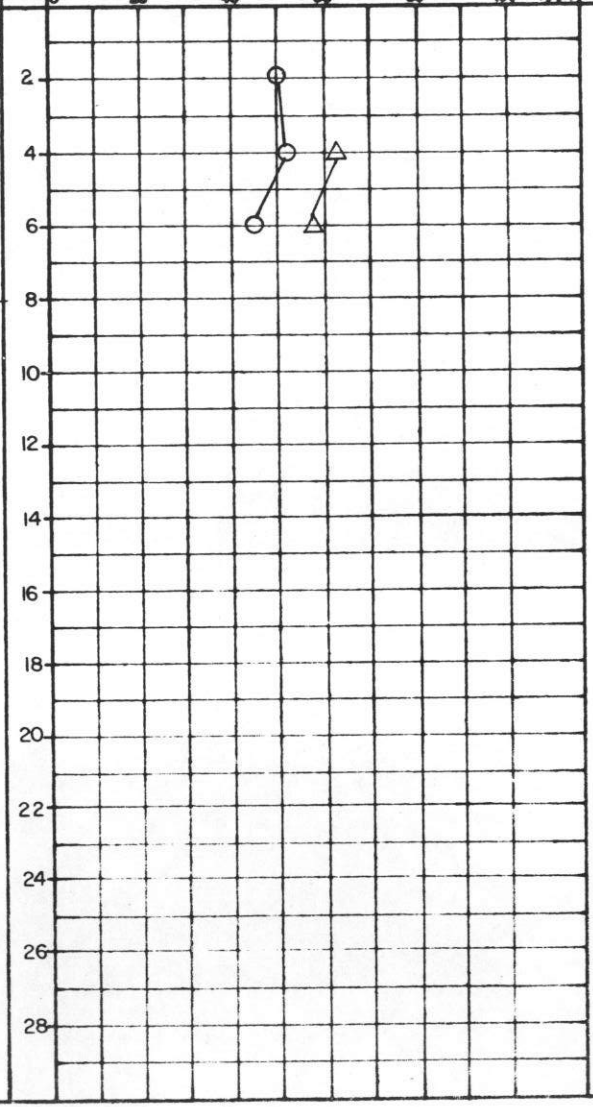
TECH. G. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 59-A

MILE 922

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 3"		
2					CI	CLAY -Sandy Silty Pebbles Medium plastic Organic from 4'-6'		Vs
8						— 8'	F	
10						SHALE		Frozen Nbn
15						— 15'		
16						BOTTOM OF HOLE - 15'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	Free Water
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-217	CHAINAGE. 683+00	OFFSET. ℄	
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	TEST HOLE 59
					MILE 922

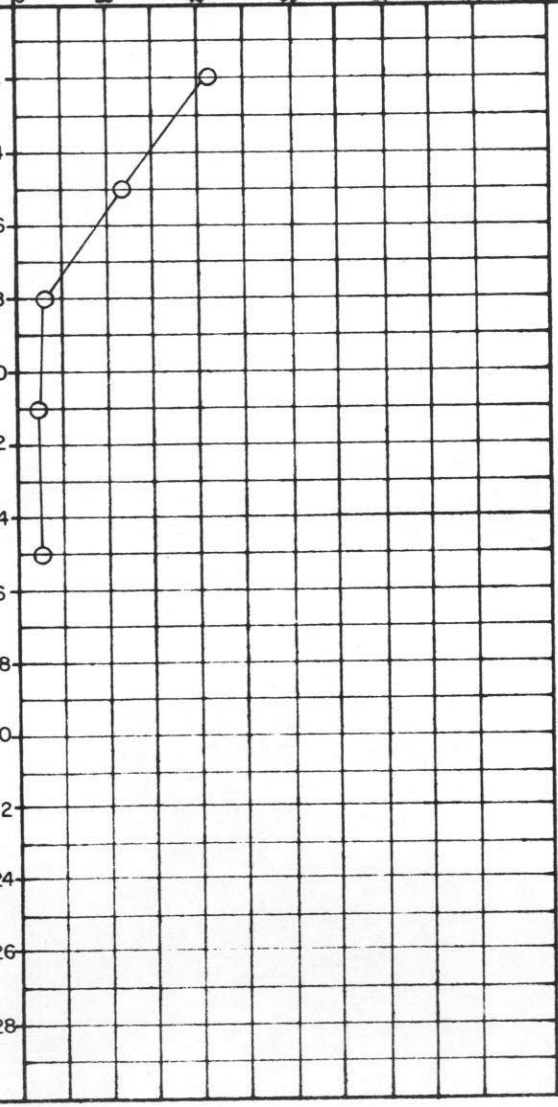
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					OH	ORGANIC .5'		MODERATE ICE
2					CI	CLAY -Organic to 4' Sandy Silty Med. Plastic	F	Vc - Vr
8						8'		
10						SHALE -Silty Soft Med. Hard		FROZEN Nbn
14						Med. Hard 15'		
16						BOTTOM OF HOLE - 15'		

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Damp	
				Damp	
				Humid	
				Mumid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-153	CHAINAGE. 700+00	OFFSET. ℄	TEST HOLE 60
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 922

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 2'		HIGH ICE					Free Water	
4					CI	CLAY -Sandy Silty Med. Plastic Shale Fragments		- Vs -					Wet	
6						— 6'	F							
8						SHALE -Silty Hard							Humid	
10								FROZEN					Humid	
12								Nbn						
14						— 14'							Humid	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-153	CHAINAGE. 713+00	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 61

MILE 922

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Pt	PEAT — 2'	F	HIGH ICE - Vs -					Free Water
4					CL	CLAY -Silty Low Plastic		MODERATE ICE Vc - Vr					Moist
6					CI	Med. Plastic — 7'							
8						SHALE -Silty Hard		FROZEN					Humid
10													Humid
12								Nbn					
14						Med. Hard — 14'							Humid
16						BOTTOM OF HOLE - 14'							
18													
20													
22													
24													
26													
28													

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-153	CHAINAGE. 730+00	OFFSET. ℄	TEST HOLE 62
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 922

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .7'	F	MODERATE ICE
2					CI	CLAY -Silty Pebbles Sandy Med. Plastic		Vc - Vr
4								
6								
8								
10						— 11'		
12						SHALE -Silty Soft-Med. Hard		FROZEN Nbn
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

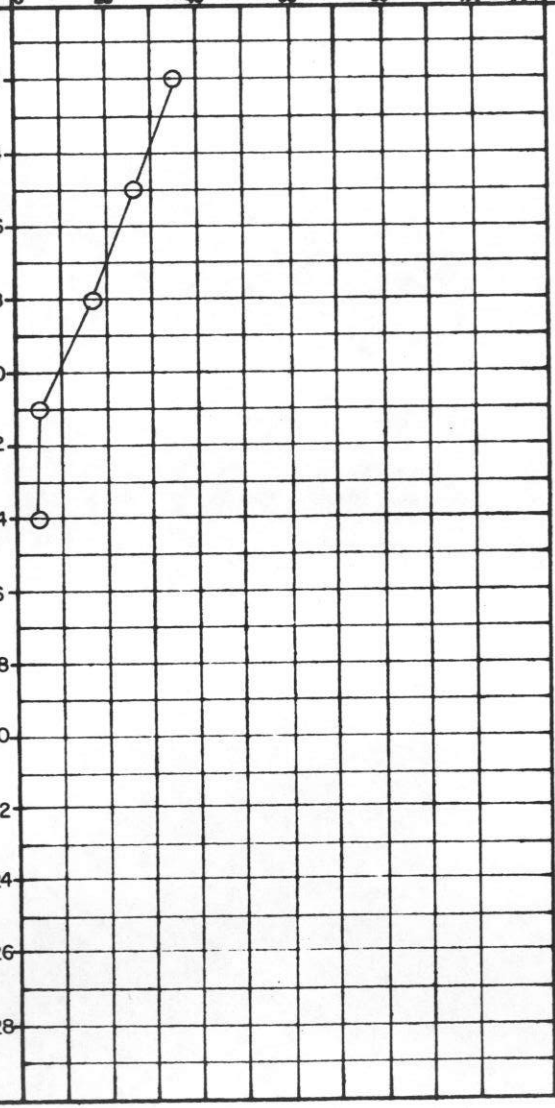
FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-153	CHAINAGE. 742+00	OFFSET. ℄
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.

TEST HOLE 63

MILE 921

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — .5'		MODERATE						Moist
2					CL	CLAY -Silty		TO						
4					CI	Pebbles Low-Med. Plastic								Damp
6								LOW						
8							F	ICE						Damp
10								Vc - Vr						
								Vx						Damp
12						SHALE -Silty — 11'		FROZEN						
14								Nbn						Humid
						15'								
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-153	CHAINAGE. 759+00	OFFSET. ℄
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 7"	ELEV.

TEST HOLE 64

MILE 921

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .7'		LOW ICE
2						CLAY -Sandy Silty Pebbles Med. Plastic		
4					CI			
6							F	Vx
8						— 9'		
10						SHALE -Silty Soft-Med. Hard		
12								FROZEN Nbn
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

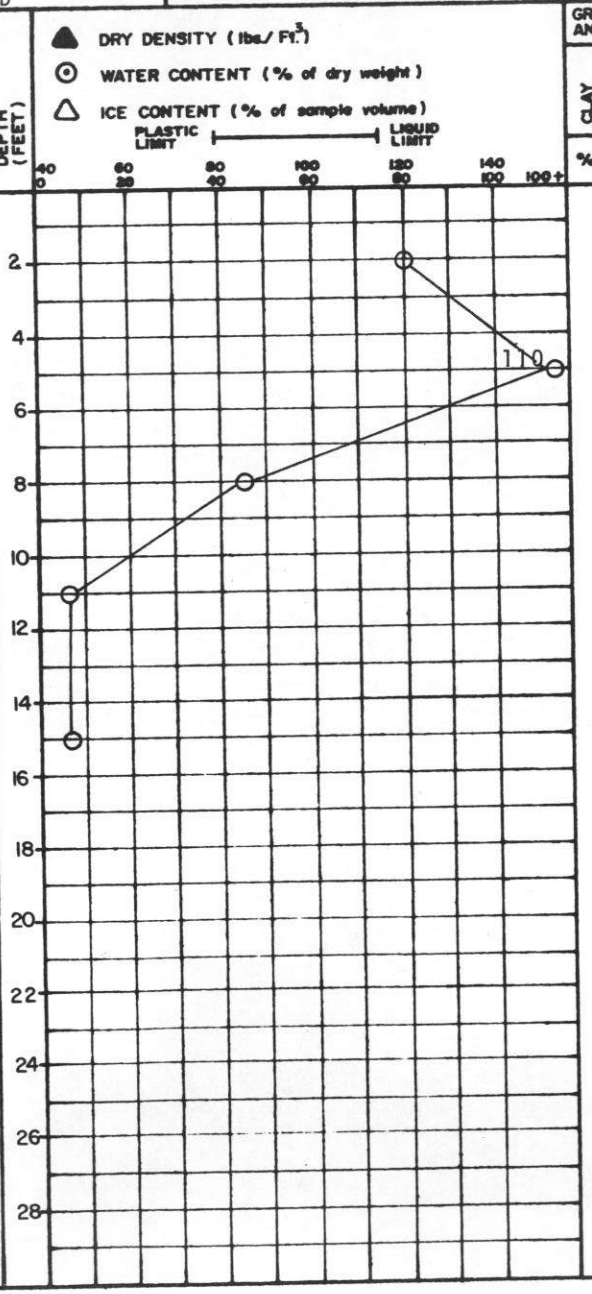
FIELD ENG. B. CONSTANT | DATE DRILLED. 24/11/73 | AIRPHOTO NO. A 22970-153 | CHAINAGE. 760+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 7" | ELEV.

TEST HOLE 65

MILE 921

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		HIGH ICE	Free Water	Free Water To 10'
2					CL CI	CLAY -Organic to 7' Sandy Silty Low-Med. Plastic	F	- Vs -	Free Water	
4									Free Water	
6										
8					GP	— 8' GRAVEL -Silty — 11'			Damp	
10										
12						SHALE -Silty Med. Hard - Hard — 15'		FROZEN Nbn	Damp	
14										
16						BOTTOM OF HOLE - 15'				
18										
20										
22										
24										
26										
28										



GRAIN-SIZE ANALYSIS

DEPTH (FEET)	CLAY %	SILT %	SAND %	GRAVEL %
0				
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				

DS-14-5-74 b

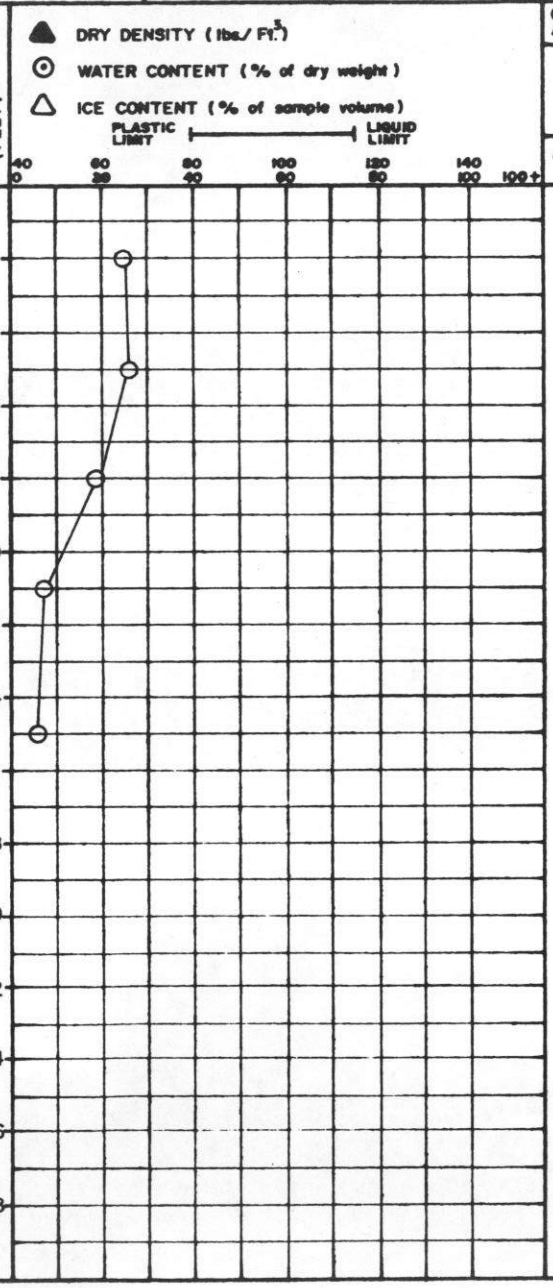
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-153	CHAINAGE. 767+50	OFFSET. ℄	TEST HOLE 66
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 7"	ELEV.	MILE 921

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — .6'		MODERATE
2						CLAY		TO
						-Silty		
4						Silty Sandy		
					CI	Med. Plastic		LOW
6								ICE
8						Pebbles		Vc - Vr
10								Vx
						— 11'		
12						SHALE		FROZEN
						-Silty		
14						Med. Hard - Hard		Nbn
						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Damp	
				Damp	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 24/11/73 | AIRPHOTO NO. A 22970-100 | CHAINAGE. 779+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 67

MILE 921

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT — .7'		LOW ICE TO MODERATE ICE	Moist
2						CLAY -Organic to 4' Silty		Vc - Vr Vx	Moist
4					CI	Med. Plastic			Damp
6									Humid
8						Pebbles			
10						— 11'			
12						SHALE -Silty Med. Hard		FROZEN Nbn	Damp
14						— 15'			
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

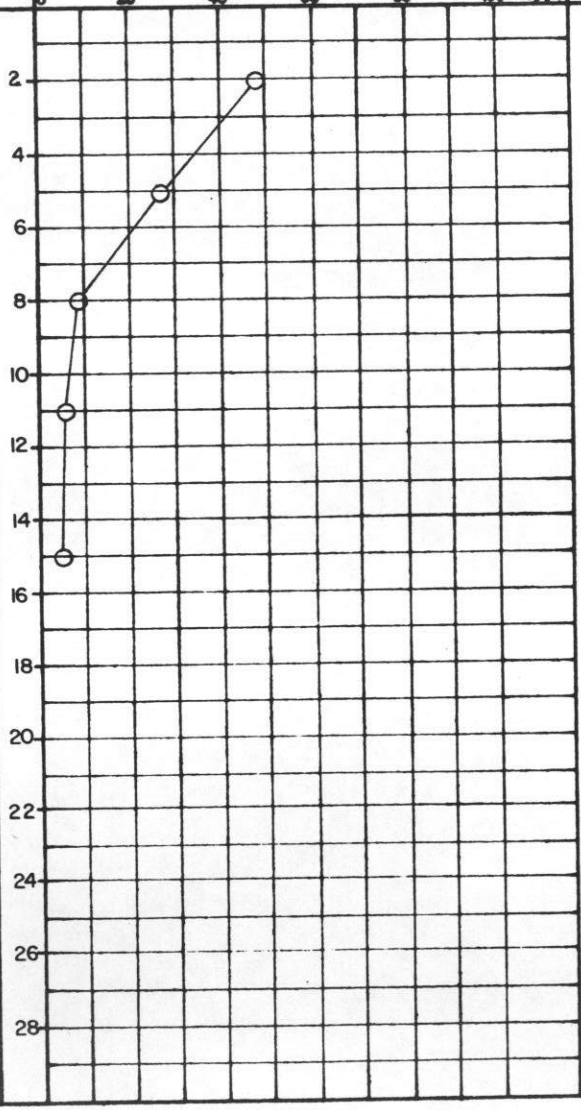
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-100	CHAINAGE. 789+00	OFFSET. ℄	TEST HOLE 68
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 7"	ELEV.	MILE 920

DRY DENSITY (lbs./Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — .8'		HIGH ICE - Vs -					Sat.	
2					CI	CLAY -Silty Sandy Med. Plastic							Wet	
4														
6						Pebbles	F						Moist	
8						— 8'								
10						SHALE -Silty Med. Hard		FROZEN Nbn					Damp	
12														
14						— 15'							Damp	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

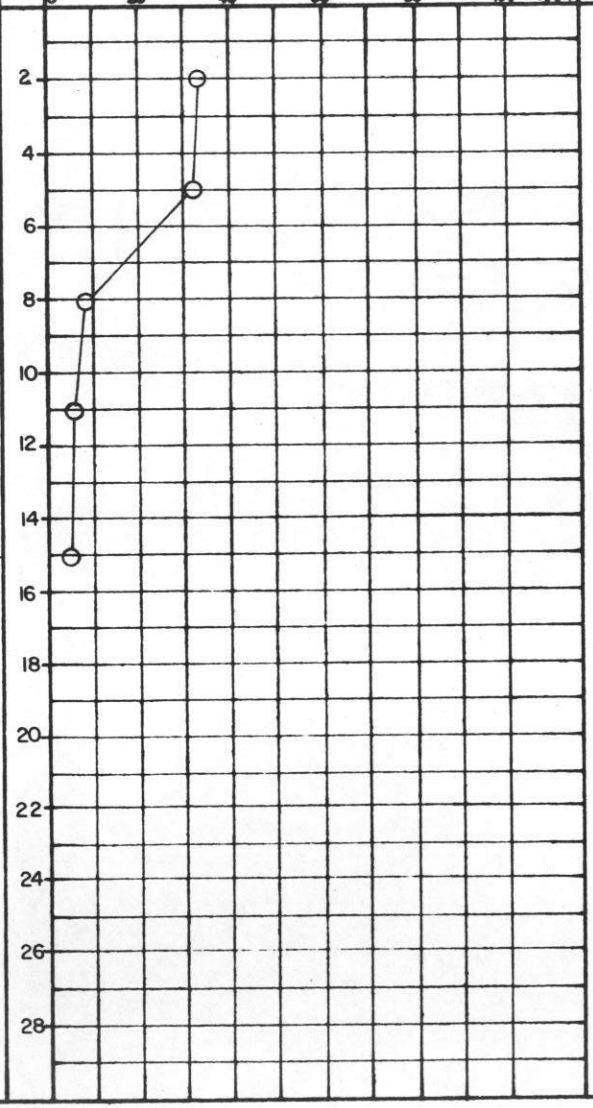
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-100	CHAINAGE. 798+00	OFFSET. ℄	TEST HOLE 69
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 920

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1.7'	F	MODERATE ICE
4					CI CH	CLAY -Silty Med-High Plastic Sandy Pebbles		Vc - Vr
6								
8						— 8'		
10						SHALE -Silty Soft-Med. Hard		FORZEN
12								Nbn
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Moist	
4					Wet	
6						
8					Damp	
10					Humid	
12						
14					Humid	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 24/11/73 | AIRPHOTO NO. A 22970-100 | CHAINAGE. 798+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE | ELEV.

TEST HOLE 69-A

MILE 920

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 1.7'			2						
					ML	SILT - Clayey — 2'		Vs						Moist	
4						CLAY			4						
					CI	-Sandy Silty Pebbles Med plastic	F	Vx						Damp	
6									6						
8						— 8'			8						
						SHALE									
10									10						
12								Frozen	12						
14								Nbn	14						
						— 15'									
16						BOTTOM OF HOLE - 15'			16						
18									18						
20									20						
22									22						
24									24						
26									26						
28									28						

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 109+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-100	CHAINAGE. 809+00	OFFSET. ℄	TEST HOLE 70
TECH. McINTOSH	RIG. MAYHEW- #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 920

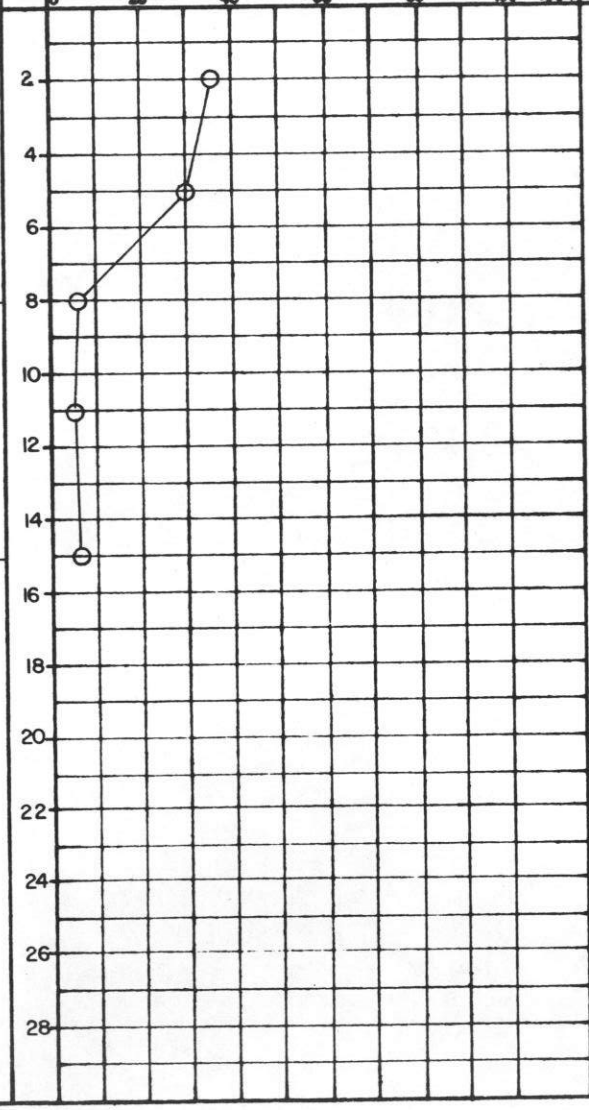
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.7'		MODERATE
2						CLAY -Organic to 4' Silty		ICE
4					CL	Low-Med. Plastic		
6					CI	Sandy Pebbles	F	Vc - Vr
8						— 8'		
10						SHALE -Silty Hard		
12						Soft-Med. Hard		FROZEN
14						Med. Hard — 15'		Nbn
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 60 20 80 40 100 60 120 80 140 100 109+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Wet	
				Humid	
				Humid	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A 22970-100	CHAINAGE. 821+00	OFFSET. ℄	TEST HOLE 71
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 920

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.3'		MODERATE
2						CLAY		ICE
4						-Sandy		
6						Silty		
8						Pebbles	F	Vc - Vr
10					CI	Med. Plastic		
12						— 11'		
14						SHALE		Nbn
16						-Silty		
18						Soft		FROZEN
20						Hard — 15'		
22						BOTTOM OF HOLE - 15'		
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Moist	
2						
4					Wet	
6						
8					Moist	
10						
12					Humid	
14						
16					Humid	
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-100	CHAINAGE. 831+00	OFFSET. ℄	TEST HOLE 72
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 920

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.7'		MODERATE ICE					Moist	
2					CI	CLAY -Organic to 4' Sandy Silty Pebbles Med. Plastic	F	Vc - Vr					Moist	
4														
6														
8						— 8'							Damp	
10						SHALE -Silty Med. Hard							Humid	
12								FROZEN						
14						— 15'		Nbn					Humid	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

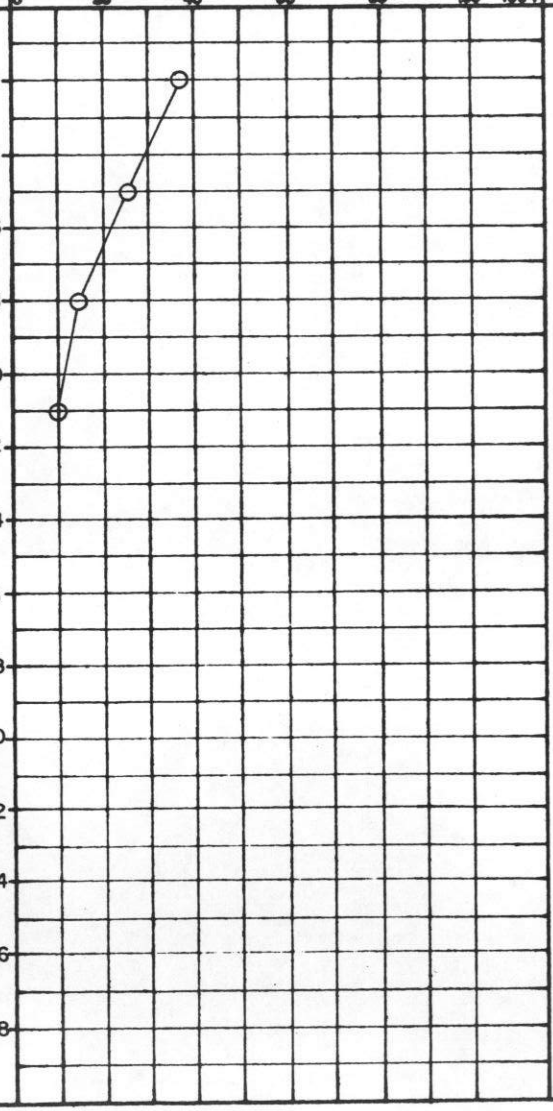
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-27	CHAINAGE. 842+00	OFFSET. ℄	TEST HOLE 73
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.7'		MODERATE ICE
2					CI	CLAY -Sandy Silty Med. Plastic Pebbles	F	Vc - Vr
8						— 8'		
10						SHALE -Silty Soft		FROZEN Nbn
12						— 12' BOTTOM OF HOLE - 12'		

DRY DENSITY (lbs./Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Moist	
				Moist	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-27	CHAINAGE. 849+00	OFFSET. ℄	TEST HOLE 74
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 2'	F	MODERATE ICE
4					CI	CLAY -Sandy Silty Pebbles Med. Plastic		Vc - Vr
6								
8						— 8'		
10						SHALE -Silty Soft		FROZEN
12								Nbn
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 109+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Moist	
				Moist	
				Damp	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 24/11/73 | AIRPHOTO NO. A 22970-27 | CHAINAGE. 849+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE 5" MAX. | ELEV.

TEST HOLE 74-A

MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
2					Pt	PEAT			Wet
						3'		Vs	
4						CLAY -Sandy Silty Pebbles Med plastic			Wet
6					CI			Vx	Moist
8						8'	F		
10						SHALE		Nbn	
12									
14								Frozen	
						15'			
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-27	CHAINAGE. 862+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.

TEST HOLE 75

MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1.9'	F	MODERATE ICE
4					CI	CLAY -Silty Sandy Pebbles Med. Plastic		Vc - Vr
6								
8								
10						— 11'		
12						SHALE -Silty Soft Med. Hard		FROZEN Nbn
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Moist	
4					Moist	
6					Moist	
8						
10					Damp	
12						
14					Damp	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

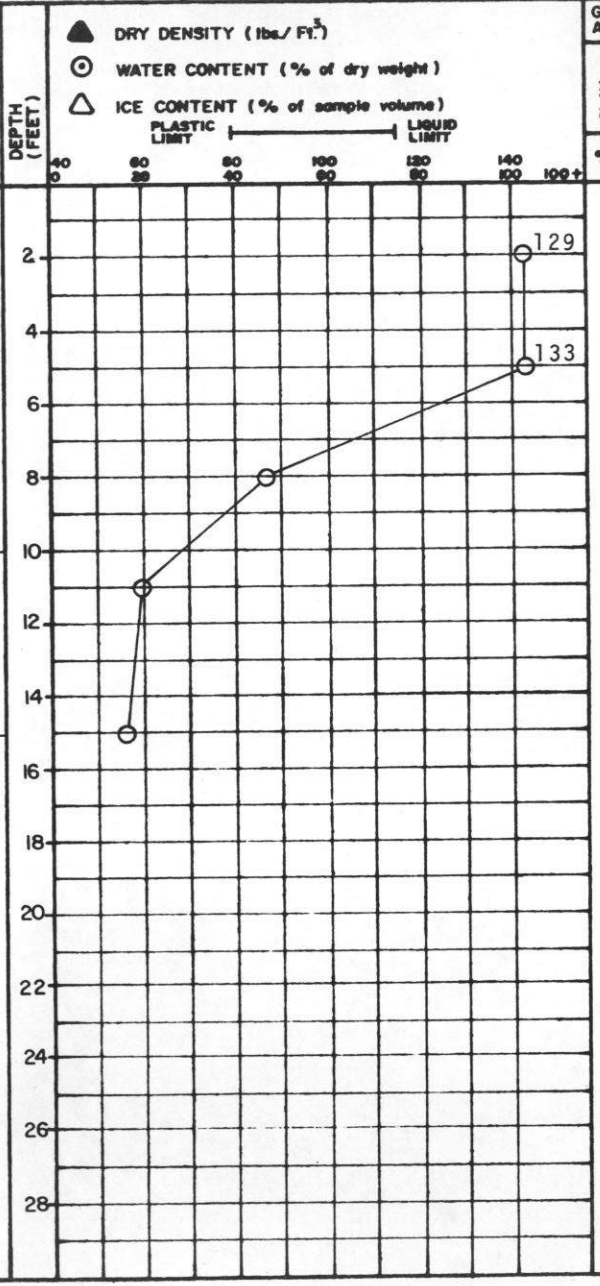
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-27	CHAINAGE. 875+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.

TEST HOLE 76

MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		HIGH
2						CLAY -Organics to 4' Sandy Silty		ICE
4					CI	Med. Plastic	F	
6								- Vs -
8								
10						Pebbles		MODERATE ICE
12								Vc - Vr
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Free Water	
				Moist	
				Moist	

DS-14-5-74 b

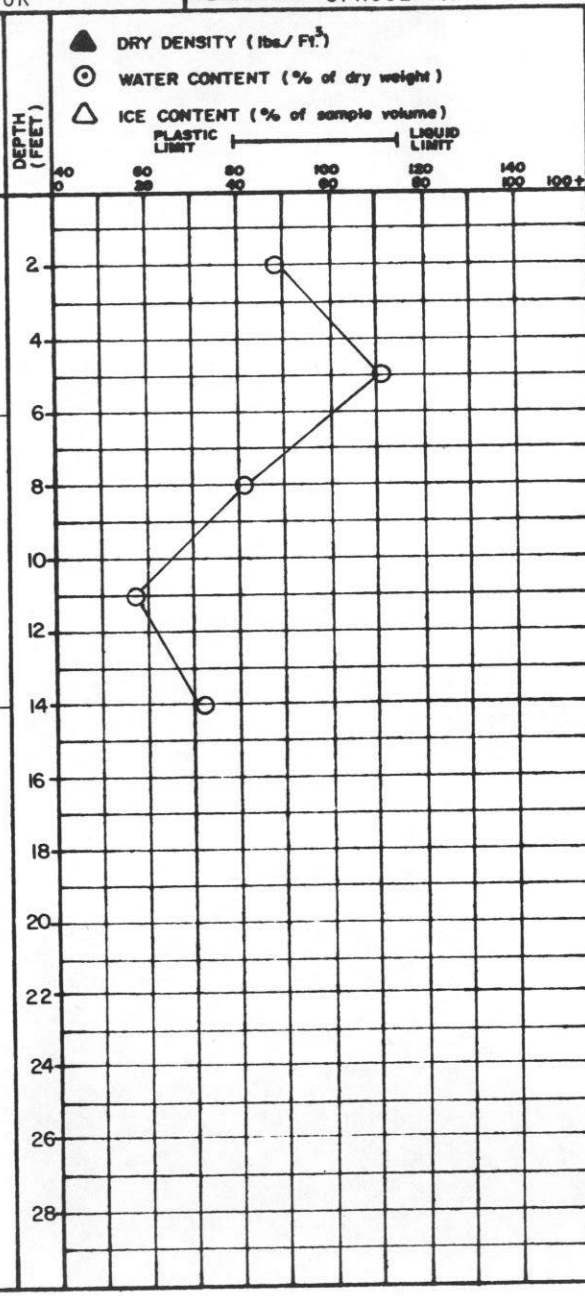
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-27	CHAINAGE. 883+00	OFFSET. ℄	TEST HOLE 77
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT .6'								
2						CLAY -Silty High Plastic		HIGH ICE Vs					Wet	
4													Free Water	
6					CH	Pebbles	F							
8								MODERATE ICE					Moist	
10													Moist	
12								Vc - Vr						
14						14'							Moist	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

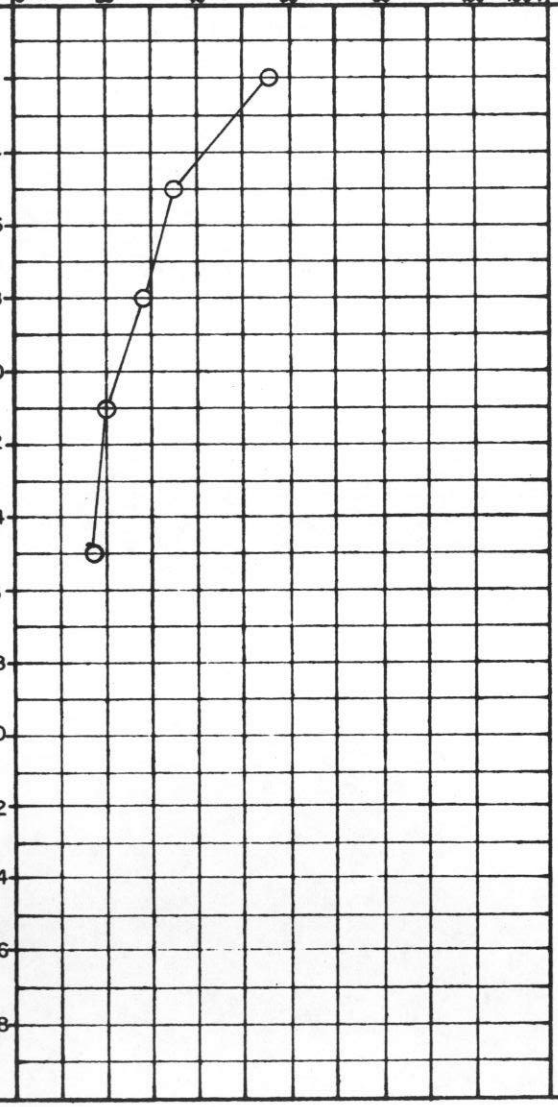
FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22970-27	CHAINAGE. 890+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW	SURFACE DRAINAGE. POOR	VEGETATION. WPRUCE MAX. 6"	ELEV.

TEST HOLE 78

MILE 919

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	HIGH ICE Vs
2						CLAY -Silty Sandy		
4					CI	Med.-High Plastic		MODERATE
6					CH	Pebbles		
8								TO
10								ICE
12								Vc - Vr
14						15'		Vx
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Wet	
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

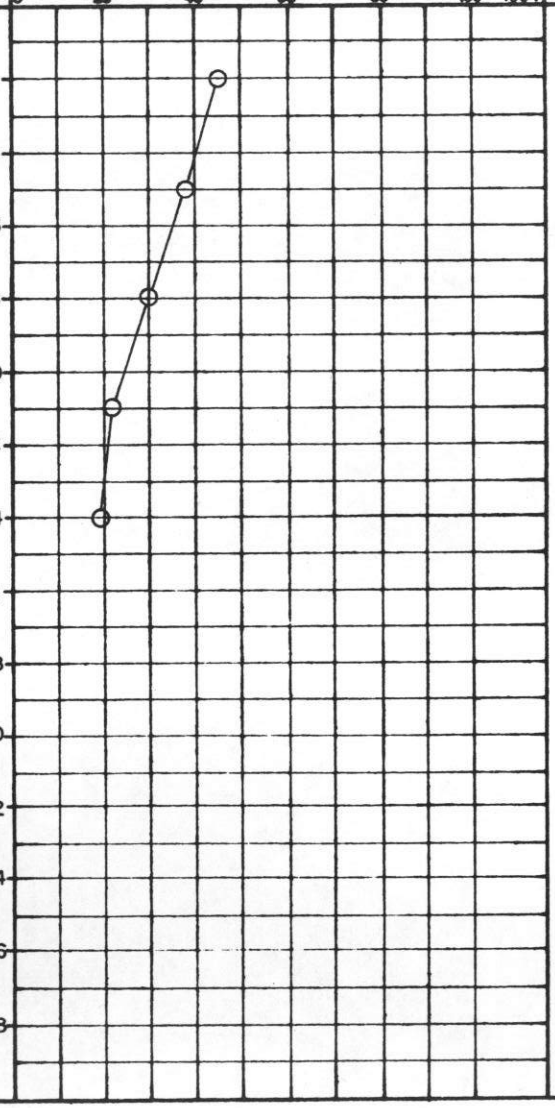
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22969-185	CHAINAGE. 902+00	OFFSET. ℄	TEST HOLE 79
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 918

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .5'		HIGH
2						CLAY		ICE
4						-Sandy Silty Med. Plastic		
6					CI	Pebbles	F	Vs
8								MODERATE
10								ICE
12								Vc - Vr
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Free Water	
2						
4					Sat.	
6						
8					Moist	
10					Moist	
12						
14					Moist	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22969-185	CHAINAGE. 902+00	OFFSET. ℄	TEST HOLE 79-A
TECH. G. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. DIA. 6"	ELEV.	MILE 918

DRY DENSITY (lbs/ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT .5'								
2					CL	CLAY -Brown Ssndy Silty Pebbles & shale chips Low to med plastic	F	Vs					Free Water	
4														
6													Free Water	
8					CI								Free Water	
10													Moist	
12								Vx					Moist	
14						14'							Moist	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

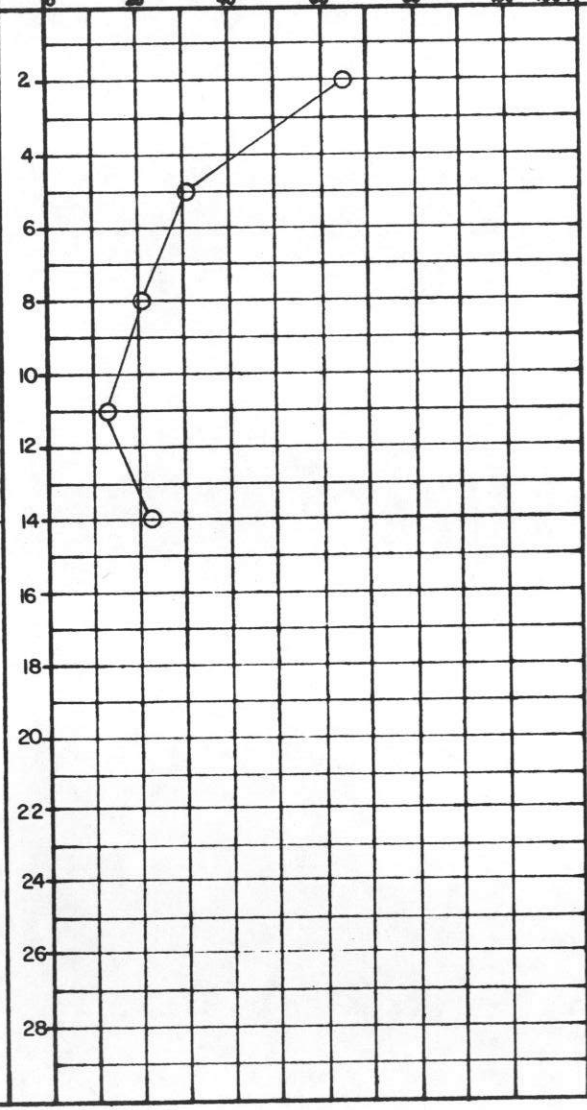
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22969-185	CHAINAGE. 912+00	OFFSET. ℄	TEST HOLE 80
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 918

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .5'	F	HIGH ICE Vs
2					CI	CLAY -Organics to 4' Sandy Silty Pebbles Med. Plastic		
4								
6								
8								LOW ICE Vx
10								
12								
14						14' BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Wet	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 25/11/73	AIRPHOTO NO. A 22969-185	CHAINAGE. 920+00	OFFSET. ℄	
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	TEST HOLE 81
					MILE 918

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — .5'		HIGH ICE Vs	Free Water
2					CL	CLAY -Sandy Silty Shale Fragments To 10' Med. & Low Plastic	F	MODERATE	Moist
4									
6									Damp
8					CI			ICE	
10								Vc - Vr	Damp
12									
14						14'			Moist
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

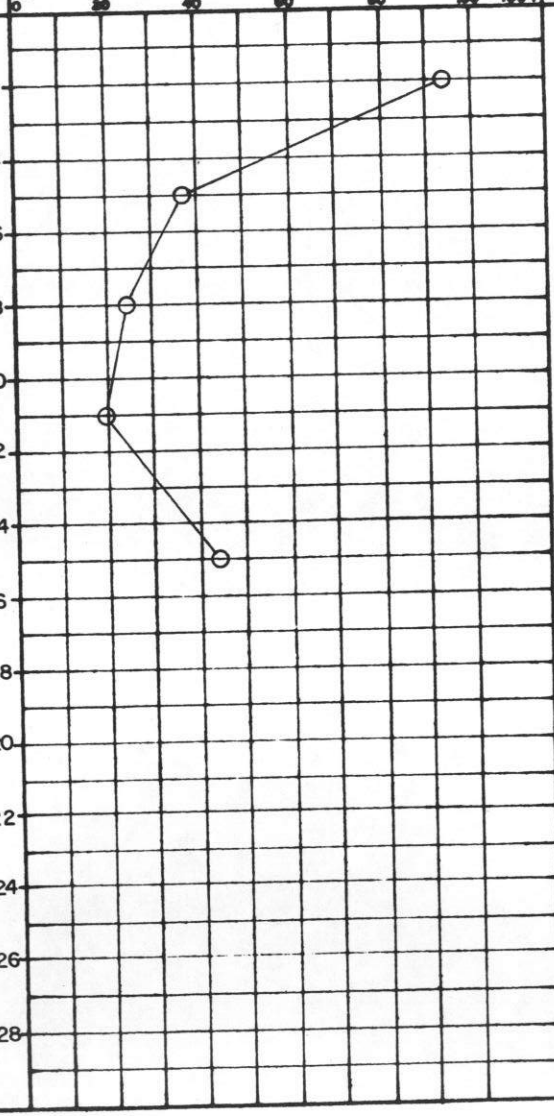
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A 22969-185	CHAINAGE. 933+00	OFFSET. ℄	TEST HOLE 82
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 918

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 2.1'		HIGH ICE					Sat.	
4						CLAY -Organics to 4' Sandy Silty Pebbles		Vs					Sat.	
6					CI	Med.-High Plastic	F							
8					CH			MODERATE ICE					Wet	
10													Moist	
12								Vc - Vr						
14						15'							Moist	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



DS-14-5-74 b

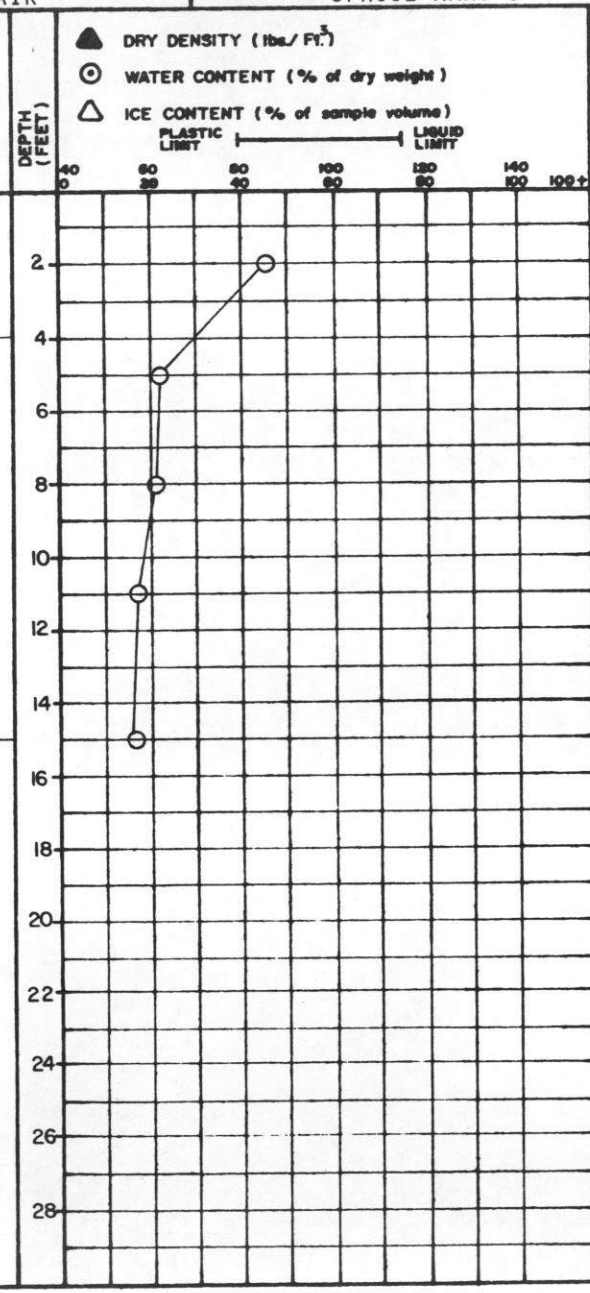
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-185	CHAINAGE. 957+00	OFFSET. ℄	TEST HOLE 83
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 917

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
								MODERATE						
2					Pt	PEAT 1.9'		ICE					Wet	
						CLAY		Vc - Vr						
4						-Sandy								
						Silty								
						Med. Plastic							Moist	
6							F							
8					CI	Pebbles		LOW					Moist	
								ICE						
10														
						Siltstone Frags.							Moist	
12						10-20%		Vx						
14														
						15'							Moist	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969_185	CHAINAGE. 968+50	OFFSET. ℄	TEST HOLE 84
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 917

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1.6'		MODERATE ICE
4						CLAY -Sandy Silty Pebbles Med. Plastic		
6					CI		F	Vc - Vr
8								
10						— 10'		
12						SHALE -Siltstone Sandstone		FROZEN Nbn
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2	●								
4	⊙								
6									
8	⊙								
10	⊙								
12									
14	⊙								
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Wet	
4					Wet	
6						
8					Wet	
10					Moist	
12						
14					Damp	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

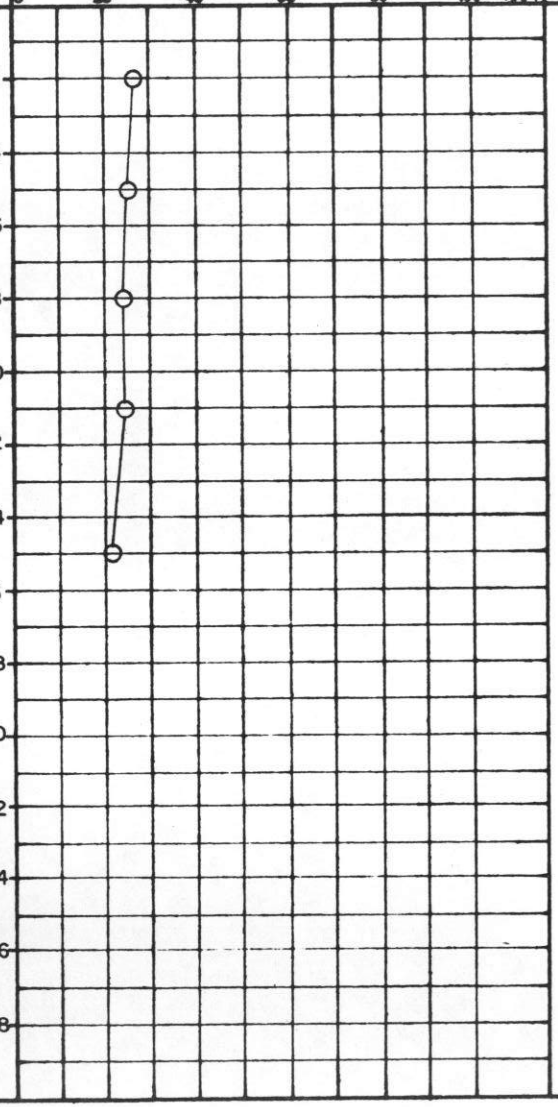
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 981+00	OFFSET. ℄	TEST HOLE 85
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. WILLOW & ALDER	ELEV.	MILE 917

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1.5'		MODERATE
4						CLAY -Sandy Silty Pebbles Med. Plastic		ICE
6					CI		F	
8								
10								Vc - Vr
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Wet	
				Moist	
				Wet	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 987+00	OFFSET. ℄	TEST HOLE	86
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. WILLOW-SPRUCE-ALDERS	ELEV.	MILE	917

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 160+
0 20 40 60 80 100

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 1.3'		MODERATE					Damp	
4						CLAY -Organics to 4' Silty Sandy High Plastic		&					Free Water	
6							F	Vs						
8					CH	Silty							Moist	
10						Organic		HIGH ICE					Wet	
12														
14						Organic		Vc--Vr					Wet	
						15'								
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

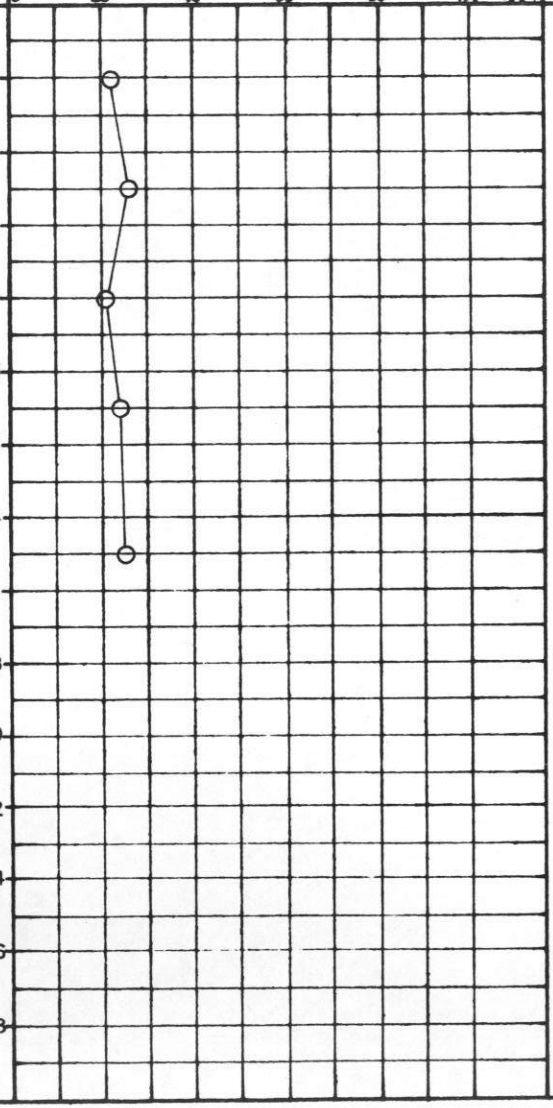
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 999+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. ALDER	ELEV.

TEST HOLE 87

MILE 916

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.1'		MODERATE					Moist	
2						CLAY		ICE						
4						-Sandy Silty Pebbles							Moist	
6						Med. Plastic	F							
8					CI								Moist	
10													Moist	
12								Vc - Vr						
14						— 15'							Moist	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+



DS-14-5-74 b

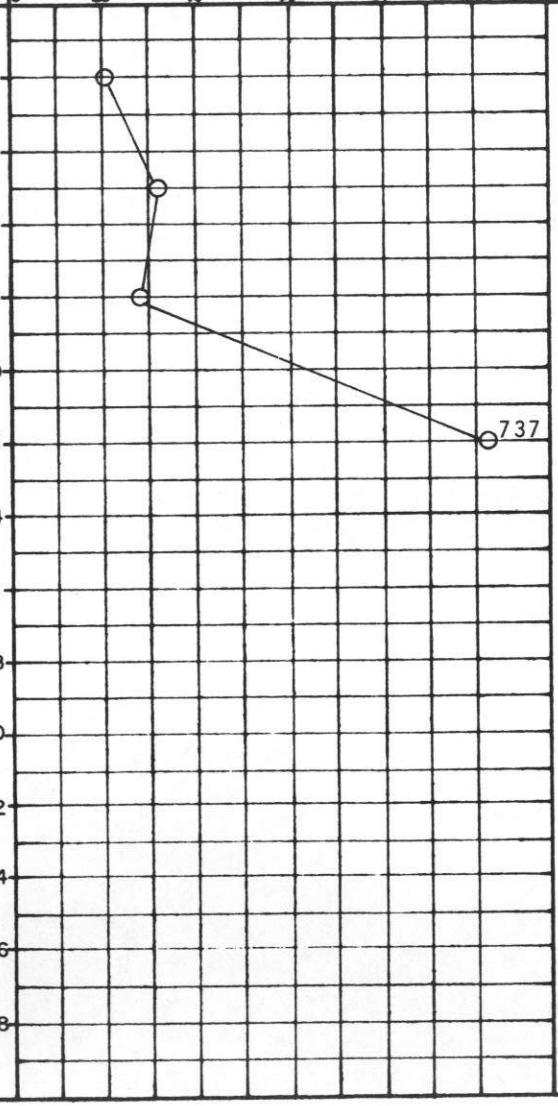
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED.	AIRPHOTO NO. A 22969-105	CHAINAGE. 1006+50	OFFSET. ℄	TEST HOLE 88
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. BIRCH-Alder 5"	ELEV.	MILE 916

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .8'		MODERATE ICE
2						CLAY		
4						-Silty		
						Sandy		
6					CI	Pebbles	F	Vc - Vr
						Med. Plastic		
8						8'		
10						ICE		ICE
						Very Little Clay		
12								CI
14						14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Wet	
				Moist	
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

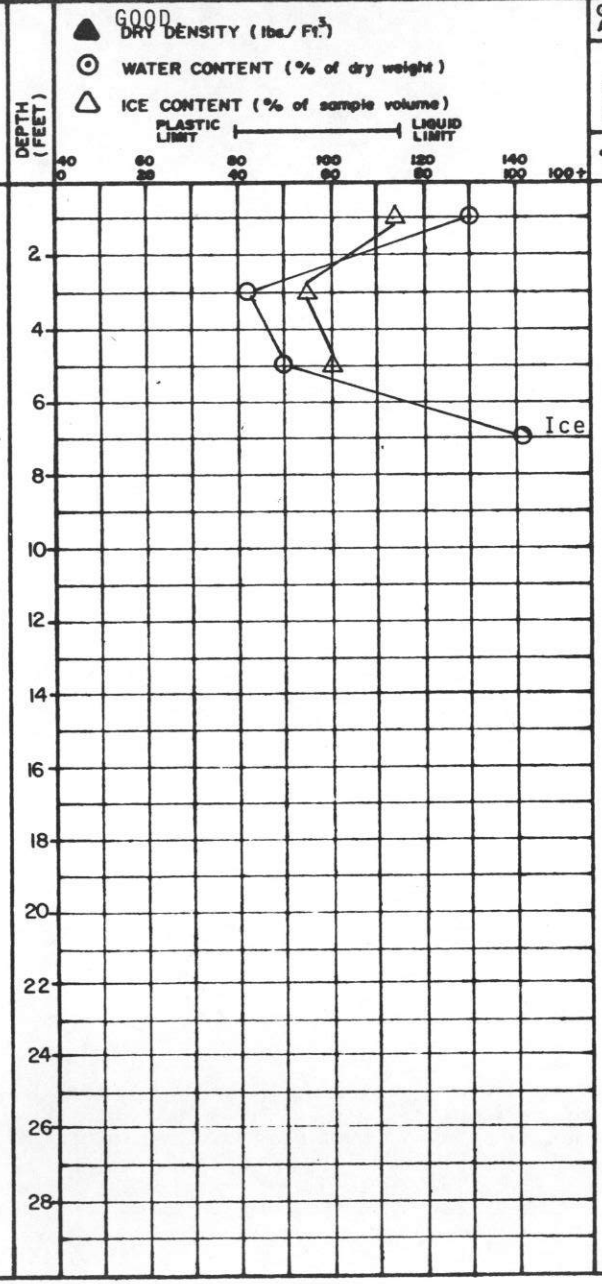
FIELD ENG. B. CONSTANT | DATE DRILLED. 28/11/73 | AIRPHOTO NO. A 22969-105 | CHAINAGE. 1006+50 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #1 | SURFACE DRAINAGE. LEFT TO RIGHT | VEGETATION. BIRCH & ALDER 5" MAX | ELEV.

TEST HOLE 88-A

MILE 916

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					OL CL CI	CLAY -Organic Silty Sandy Low to med plastic Free water	F	Ice Lenses Vs Ice
4								
6								
						7'		
8						BOTTOM OF HOLE - 7'		
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY	SILT	SAND	GRAVEL	
%	%	%	%	

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 1018+00	OFFSET. ℄	TEST HOLE 89
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. ALDERS	ELEV.	MILE 916

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — 1'		MODERATE						
2						CLAY							Moist	
4						-Silty		ICE						
6					CI	Sandy Pebbles Med. Plastic							Wet	
8													Wet	
10								Vc - Vr					Wet	
12														
14						— 14'							Moist	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 1026+00	OFFSET. ℄
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. ALDERS	ELEV.

TEST HOLE 90

MILE 916

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 1'		HIGH
4						CLAY -Organic Silty		&
6					CL	Sandy-Pebbles Low-Med. Plastic	F	Vs
8					CI	Organic 8'-9'		MODERATE
10						Cobbles From 10'		ICE
12								Vc - Vr
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Damp	
4					Free Water	Free Water
6						
8					Moist	
10					Free Water	
12						
14					Sat.	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

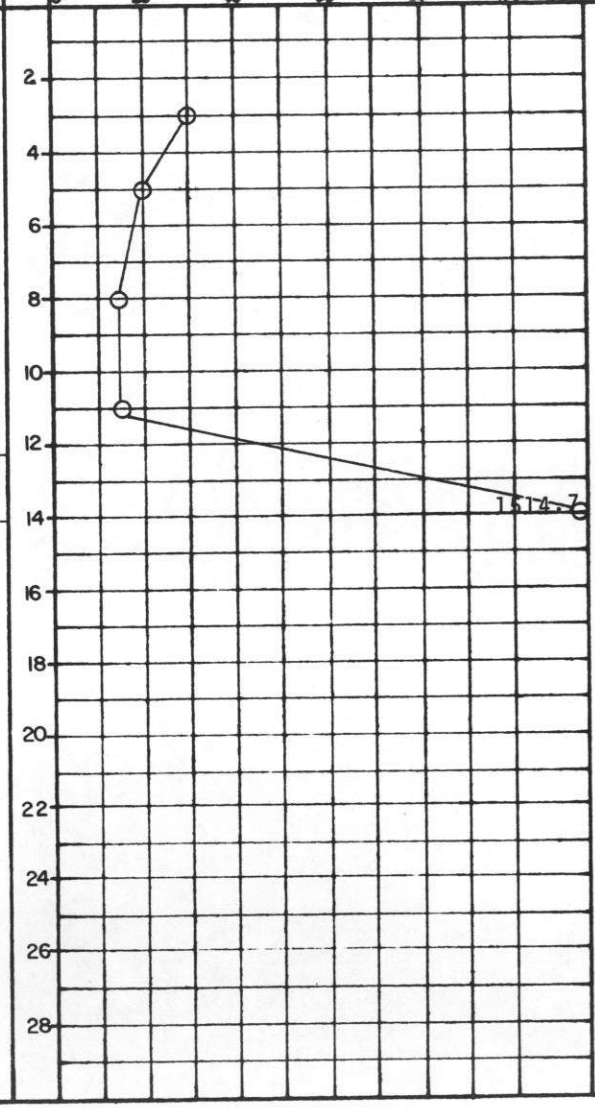
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 1034+00	OFFSET. ℄
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. ALDER	ELEV.

TEST HOLE 91

MILE 916

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					OH	ORGANIC — 1'		LOW					Damp	
2						CLAY -Sandy Silty Shale Fragments Pebbles Med. Plastic Cobbles From 6'		ICE						
4					CI		F	Vx					Damp	
6													Moist	
8														
10													Damp	
12														
						ICE — 14'		ICE					Water	
14						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1046+00	OFFSET. ℄	TEST HOLE 92
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. ALDERS	ELEV.	MILE 916

DRY DENSITY (lbs./Ft.³) ▲ · WATER CONTENT (% of dry weight) ⊙ · ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 8"		MODERATE						
2						CLAY							Damp	
4						-Organics to 4'		TO						
6						Sandy		LOW					Moist	
8					CI	Silty	F	ICE					Damp	
10						Pebbles		Vc - Vr					Moist	
12						Med. Plastic		Vx						
14						— 15'								
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 28/11/73 | AIRPHOTO NO. A 22969-44 | CHAINAGE. 1049+50 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 5" | ELEV.

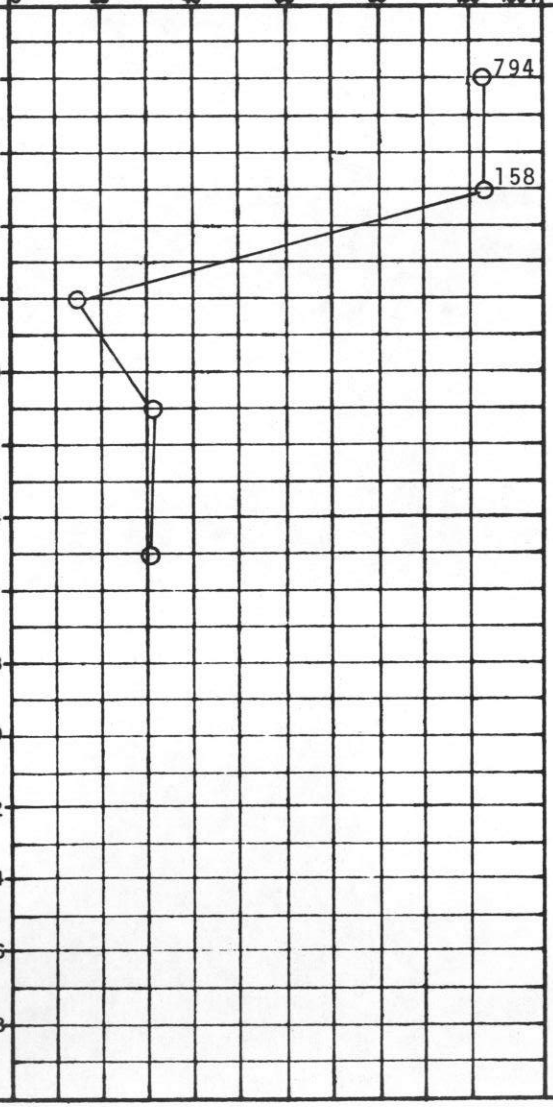
TEST HOLE 93

MILE 915

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.7'		HIGH ICE
2					OL Pt	ROOTS -Peat Some Clay Pebbles		Vs
6						— 7'	F	
8					CI	CLAY -Sandy Silty Pebbles Med. Plastic		MODERATE ICE
14						— 15'		Vc - Vr
16						BOTTOM OF HOLE - 15'		

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Free Water	
					Wet	
					Damp	
					Moist	
					Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

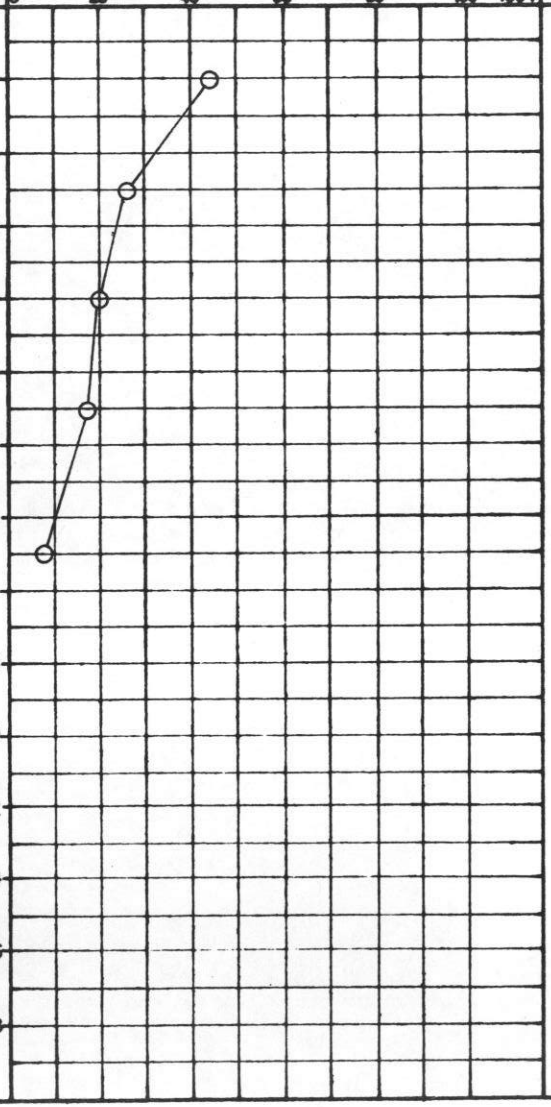
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1057+00	OFFSET. ℄	TEST HOLE 94
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 915

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		HIGH ICE Vs
2						CLAY -Silty Sandy Med. Plastic Pebbles		
4								
6					CI		F	MODERATE ICE Vc - Vr
8								
10								
12						— 13'		
14						SHALE-Silty Soft-Med. Hard		Nbn
16						— 15' BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Wet	
				Moist	
				Moist	
				Humid	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET. ℄	TEST HOLE 95
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 12"	ELEV.	MILE 915

DRY DENSITY (lbs./ Ft.^{3}) ▲ WATER CONTENT (% of dry weight) ⊙ ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 8"		MODERATE ICE					Damp	
2					CL CI	CLAY -Organics to 4' Silty Sandy Pebbles Low-Med. Plastic	F	Vc - Vr					Wet	
6													Damp	
10						—10'								
10						SHALE Siltstone Soft-Med. Hard		FROZEN Nbn					Humid	
14						—14'							Humid	
14						BOTTOM OF HOLE - 14'								

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

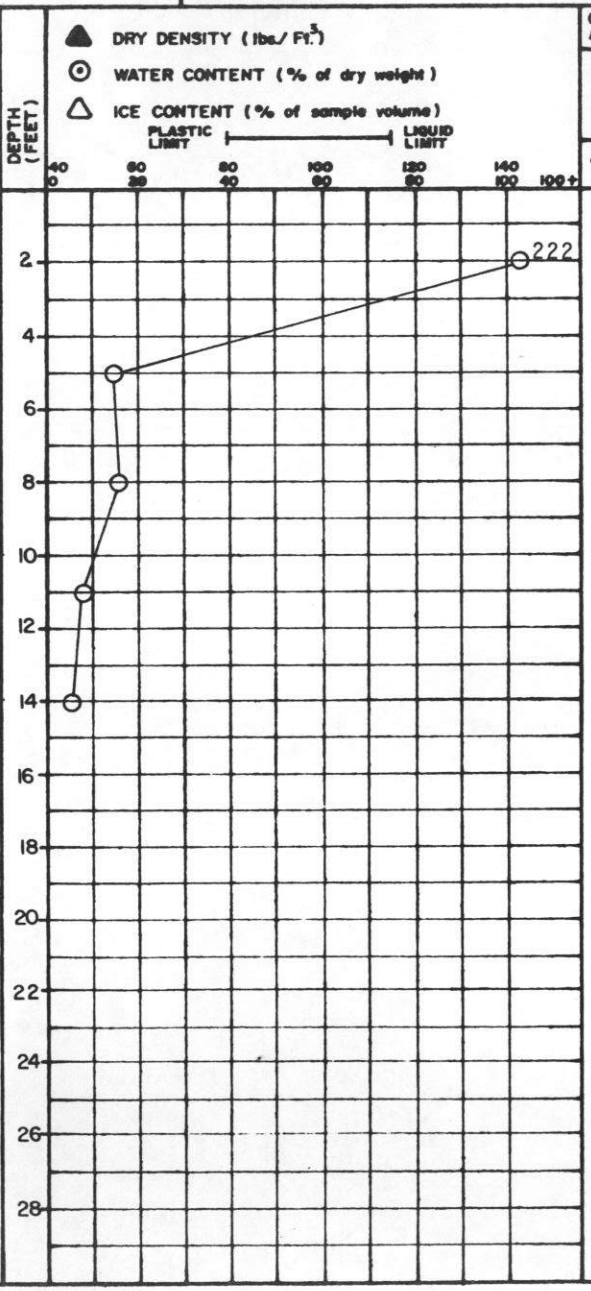
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1068+00	OFFSET. CREEK CROSSING
TECH.	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 96

MILE 915

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		HIGH ICE Vs
						3'		
4						CLAY -Silty Sandy Pebbles		LOW
6					CL	Low Plastic Shale Frags. @ 8'	F	ICE Vx
8								
10						10'		
12						SHALE -Silty Soft-Hard		FROZEN Nbn
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Sat.	
				Moist	
				Damp	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1077+00	OFFSET. ℄	TEST HOLE 97
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.	MILE 915

DRY DENSITY (lbs./ Ft.^{3}) ▲ — WATER CONTENT (% of dry weight) ⊙ — ICE CONTENT (% of sample volume) △ — PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 8"		MODERATE ICE					Sat.	
2					CI	CLAY -Silty Sandy Shale Fragments Med. Plastic Cobbles								
4													Wet	
6							F	Vc - Vr						
7.5'														
8						SHALE -Silty Soft-Hard							Damp	
10								FROZEN					Damp	
12								Nbn						
14						14'							Damp	
						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

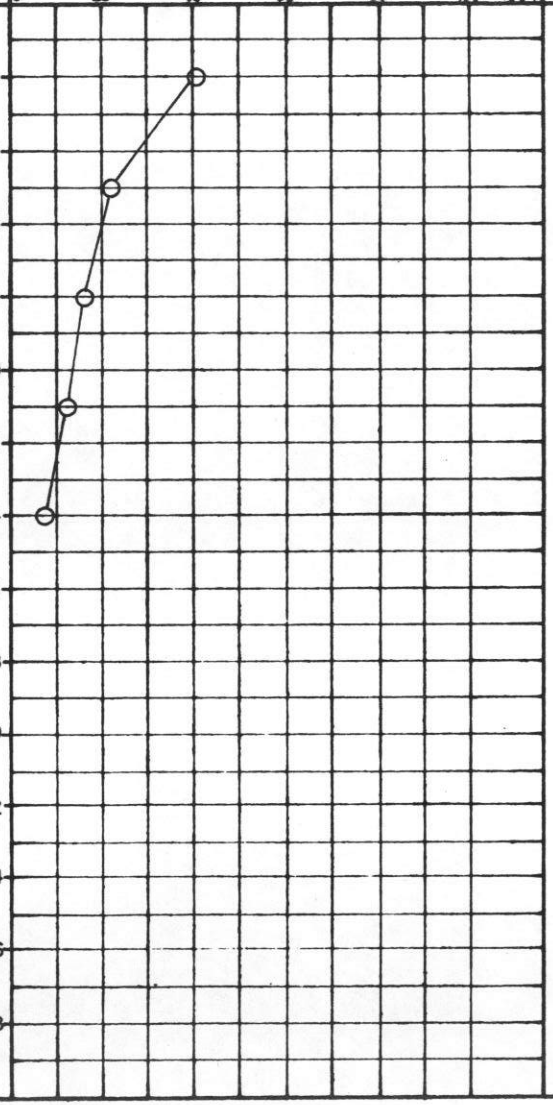
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1091+00	OFFSET. ℄	TEST HOLE 98
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.	MILE 915

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		HIGH ICE
2						CLAY		Vs
4						-Silty Sandy		
6					CL	Pebbles & Shale Fragments	F	MODERATE
8					CI	Low-Med. Plastic		ICE
10						Siltstone Frags.		Vc - Vr
12						12.5'		LOW ICE Vx
14						SHALE-Silty Sandstone Frags. 14'		FROZEN
16						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Wet	
				Moist	
				Moist	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

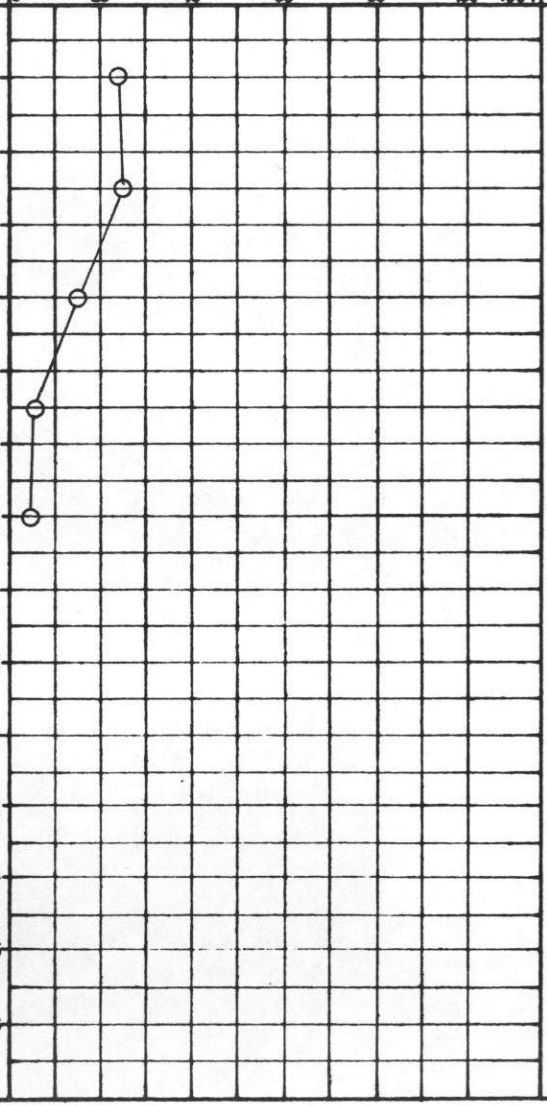
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1100+00	OFFSET. ℄	TEST HOLE 99
TECH. SAWCHUK	RIG. MAYHEW-#1	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE-ALDER	ELEV.	MILE 915

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		MODERATE
2						CLAY -Sandy Silty Pebbles - Till Med. Plastic		TO
4								LOW
6					CI		F	ICE
8								Vx
10						10'		Vc - Vr
12						SHALE -Siltstone Hard		FROZEN
14						14'		Nbn
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Wet
4					
6					Wet
8					Damp
10					Damp
12					
14					Humid

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1111+50	OFFSET. ℄	TEST HOLE 100
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 914

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — .8'	F	MODERATE TO LOW Vx ICE Vc - Vr					Moist	
2					CI	CLAY -Sandy Silty Med. Plastic							Moist	
4													Moist	
6													Moist	
8						— 8'							Damp	
10						SHALE -Soft to Hard		FROZEN					Humid	
12														
14						— 14'		Nbn						
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160+

DEPTH (FEET): 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

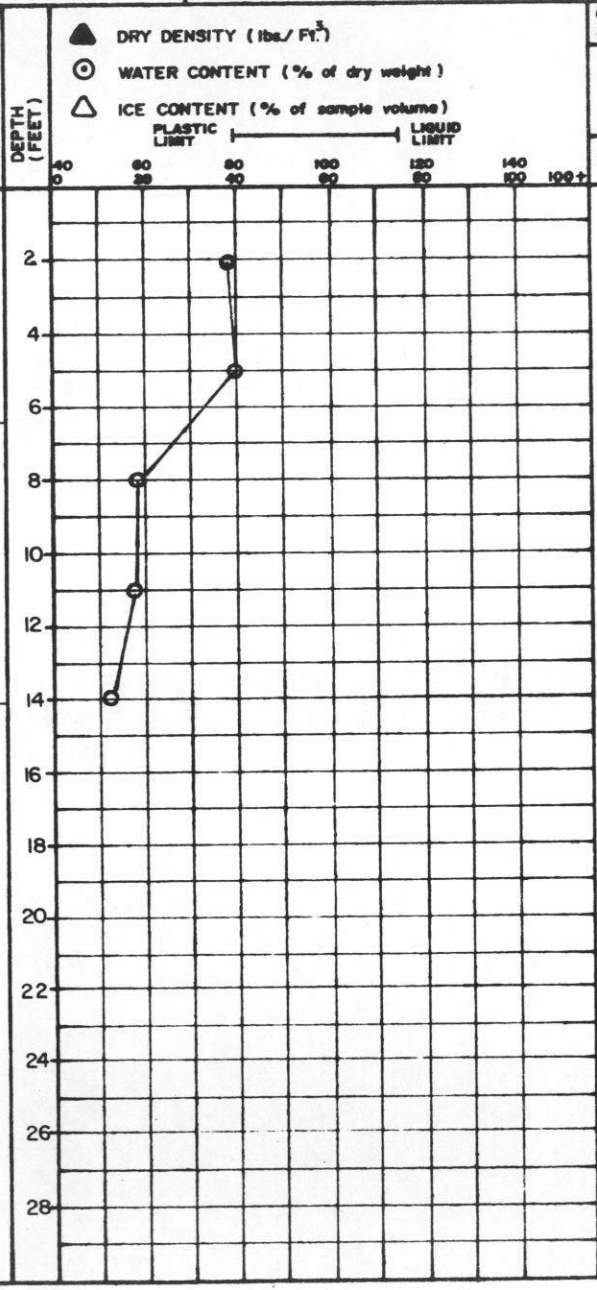
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1120+50	OFFSET. D
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR-LEVEL	VEGETATION. SPRUCE	ELEV.

TEST HOLE 101

MILE 914

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	8"		
2						CLAY - SILTY - SANDY MED. PLASTIC		HIGH ICE
4								
6					Cl		F	- Vs -
8								LOW ICE
10						PEBBLES		Vx
12						13.5'		
14						SHALE - SILTSTONE 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				SAT.
				FREE WATER
				MOIST
				DAMP
				DAMP

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

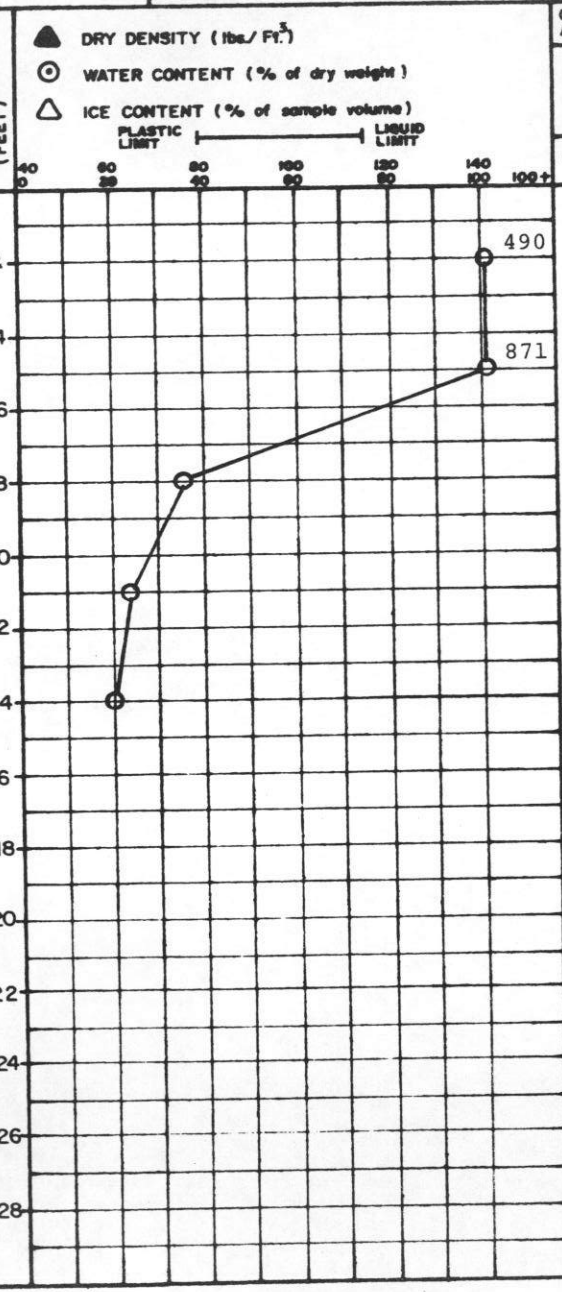
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1126+00	OFFSET. E
TECH. PRONYCH	RIG. MAYHEW #1	SURFACE DRAINAGE. Poor	VEGETATION. Spruce	ELEV.

TEST HOLE 102

MILE 914

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		HIGH ICE					FREE WATER
6.5					Ol	CLAY - SILTY	F	Vs					FREE WATER
						CLAY - SILTY - SANDY MED PLASTIC		MODERATE ICE					WET
					Cl	PEBBLES @ 10'		VC - VR					MOIST
14						BOTTOM OF HOLE - 14'							MOIST



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

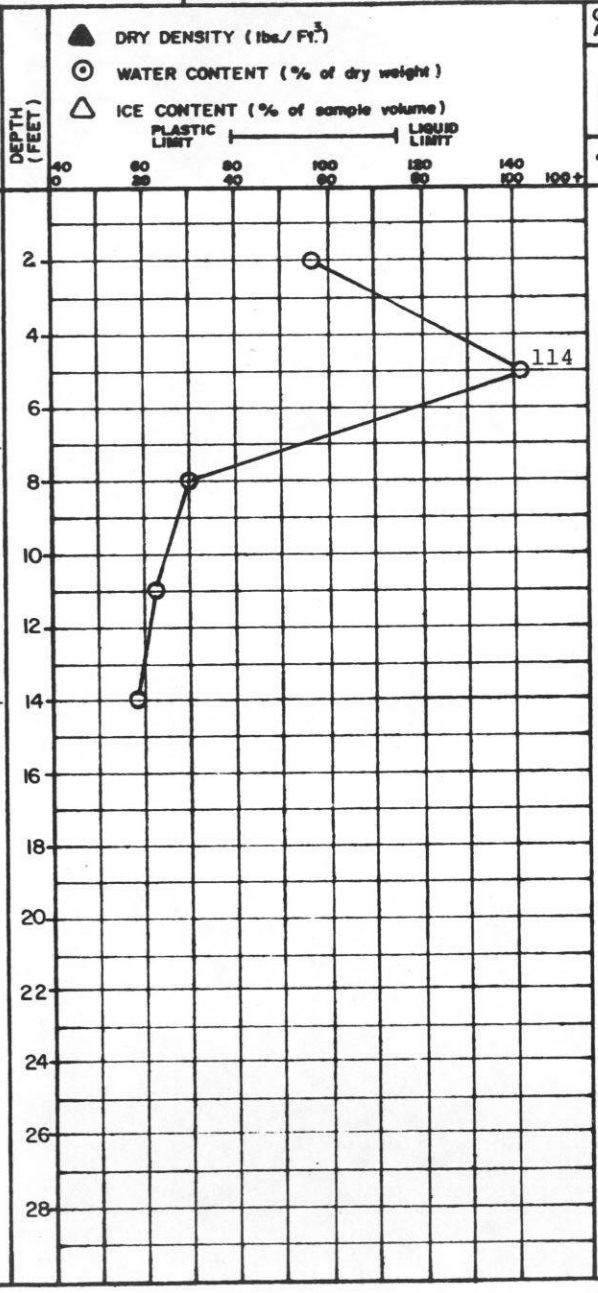
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1137+00	OFFSET. D
TECH. PRONYCH	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION. SPRUCE	ELEV.

TEST HOLE 103

MILE 914

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT 1'		HIGH
4						CLAY - SILTY - SANDY MED PLASTIC		ICE
6								- Vs -
8					Cl	PEBBLES @ 8'		MODERATE
10								ICE
12								Vc - Vr
14						SILTSTONE FRAGS. 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	Free Water to 7'
				FREE WATER	
				MOIST	
				MOIST	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

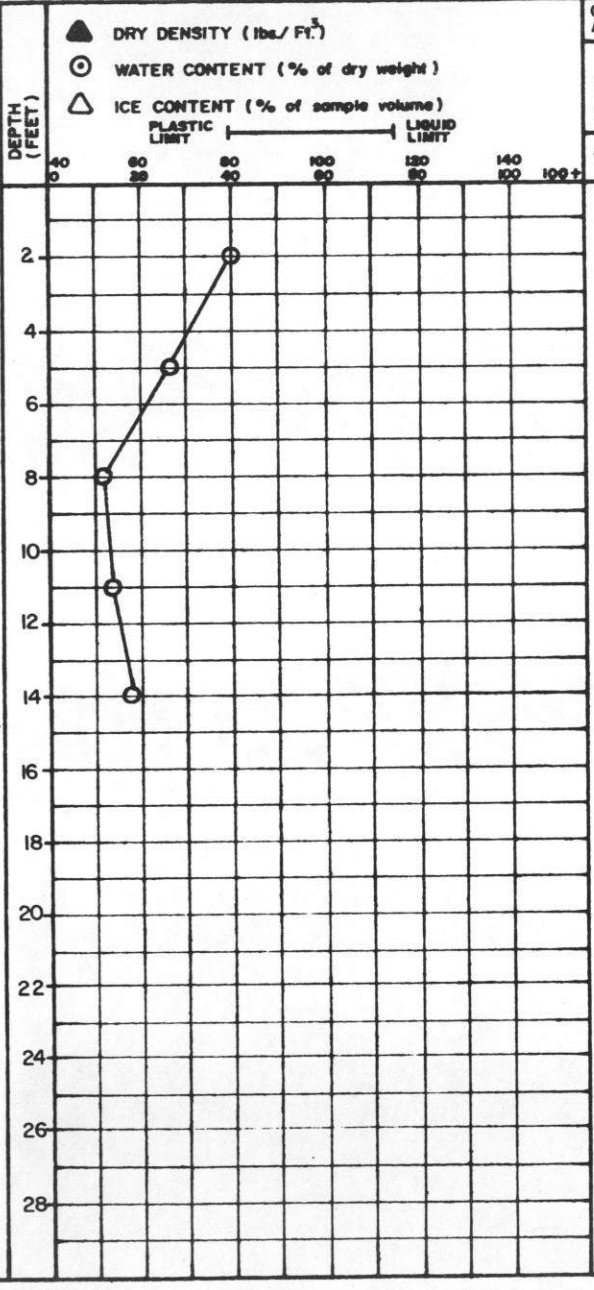
FIELD ENG. B. CONSTAN	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1146+00	OFFSET. D
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE & POPLAR	ELEV.

TEST HOLE 104

MILE 914

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 6"		MODERATE ICE
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS PEBBLES MED PLASTIC		- Vs -
4								
6								Vc - Vr
8						8'	F	
10						SHALE - HARD		LOW ICE
12								
14						14'		Vx
					Cl	CLAY - SHALE FRAG. 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					WET
4					WET
8					WET
10					WET
14					MOIST

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1155+50	OFFSET. Ɛ	TEST HOLE 105
TECH. PRONYCH	RIG. MAYHEW #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE 913

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		HIGH ICE
2					Cl	CLAY - ORG to 4' - SILTY - SANDY	F	- Vs -
4					Cl	LOW - MED PLASTIC		
6								
8						ICE		ICE & Cl
10					Cl	CLAY - SILTY		
						ICE		ICE
12					Cl	CLAY - SILTY - SANDY MED PLASTIC 14'	F	- Vs - HIGH ICE
14						BOTTOM OF HOLE 14'		
16								
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 109+

752

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					FREE WATER	
4					SAT	
8					FREE WATER	
10					SAT	
14					SAT	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

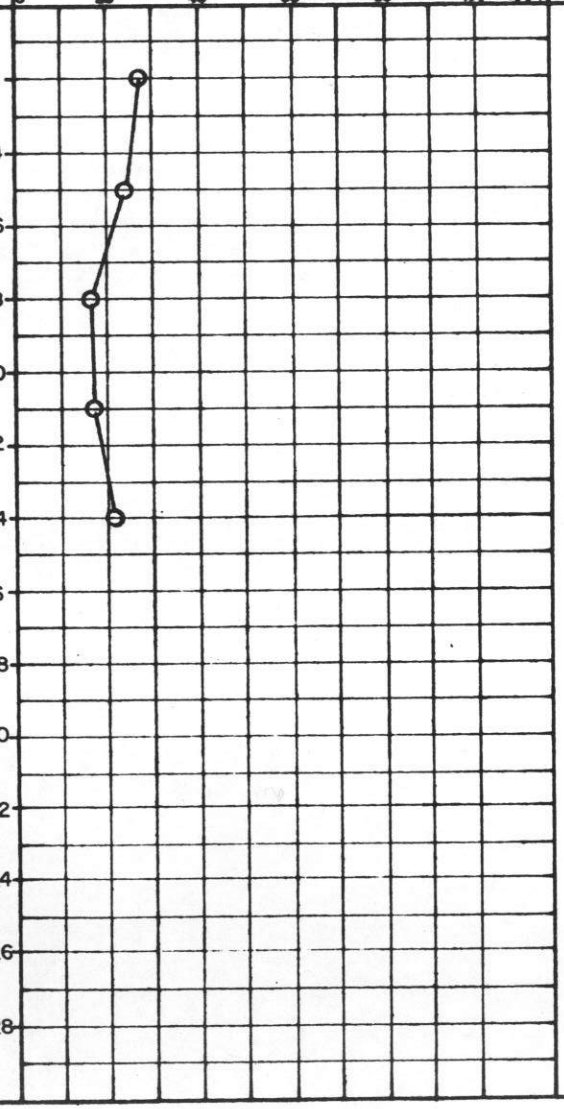
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22969-42	CHAINAGE. 1166+00	OFFSET. D
TECH. PRONYCH	RIG. MAYHEW #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE & ALDER	ELEV.

TEST HOLE 106

MILE 913

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS MED PLASTIC	F	MODERATE ICE
4								
6								
8						— 8'		
10					Cl	CLAY - SANDY SILTY PEBBLES - TILL MED PLASTIC		Vc - Vr
12								
14						— 14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				WET	
				MOIST	
				DAMP	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

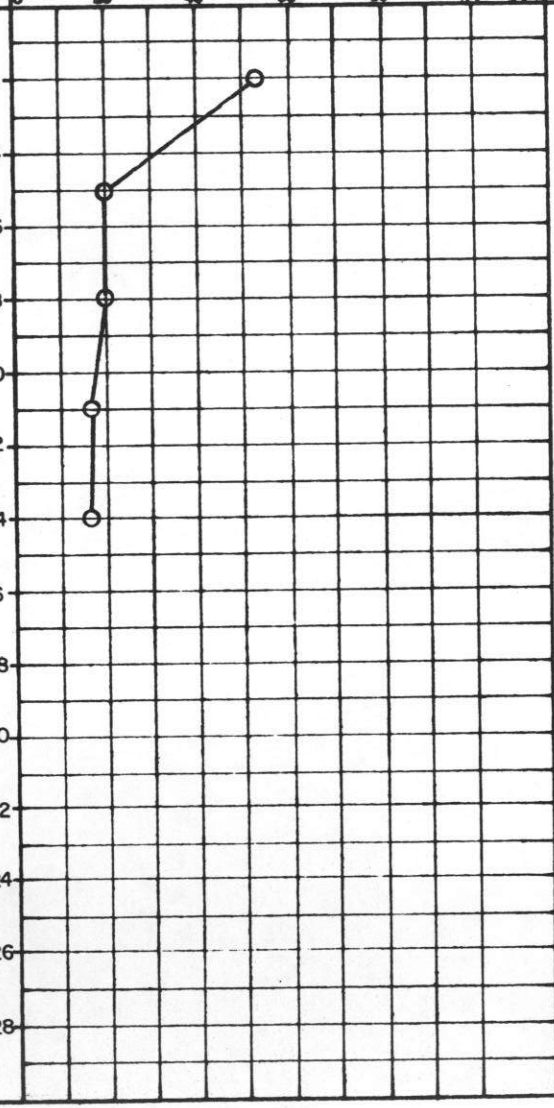
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-190	CHAINAGE. 1176+00	OFFSET. Ð
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. &"	ELEV.

TEST HOLE 107

MILE 913

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		HIGH ICE
2						CLAY - SILTY		Vs
						- SANDY		
4						MED PLASTIC		
					Cl		F	
6								
8								LOW ICE
10								Vx
12								
						PEBBLES 14'		
14						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				FREE WATER
				DAMP
				DAMP
				DAMP
				DAMP

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 28/11/73 | AIRPHOTO NO. A 22968-190 | CHAINAGE. 1176+00 | OFFSET. ℄

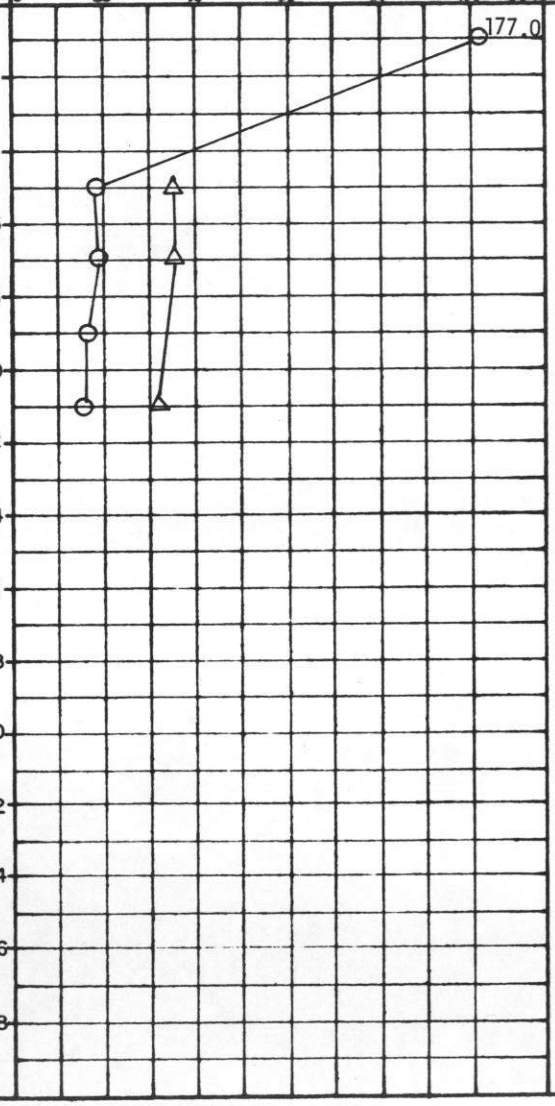
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. | VEGETATION. SPRUCE - DENSE | ELEV.

TEST HOLE 107-A

MILE 913

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		Nbe
2					M	SILT		
4						CLAY -Sandy Silty Pebbles		Vs
6					CI	Medium plastic	F	Nbn
8								Nbn
10								Nbn Vs Ice Lense ¼" Thick
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

DS-14-5-74 b

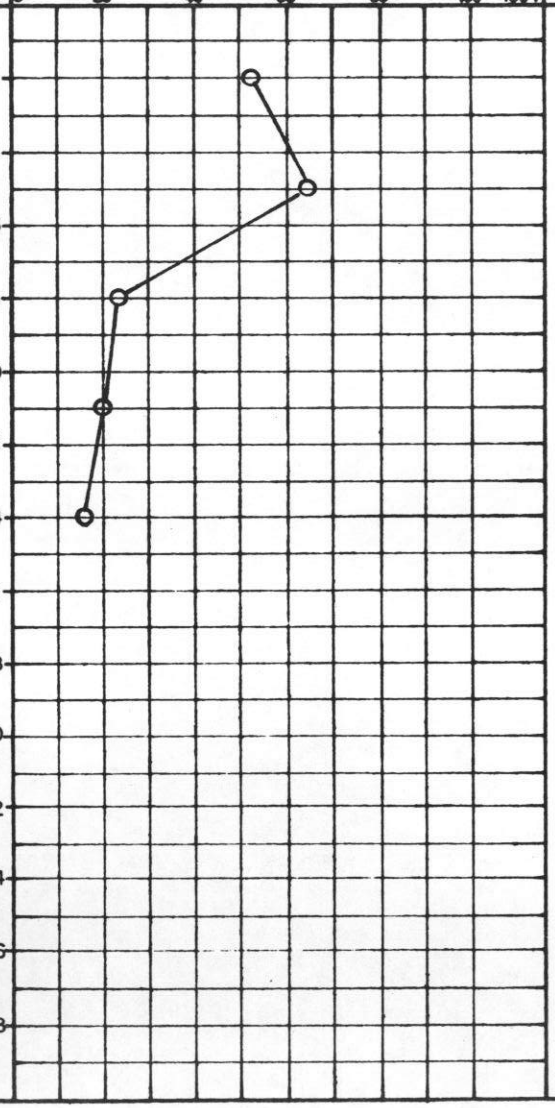
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-190	CHAINAGE. 1183+00	OFFSET. Ⓛ	TEST HOLE 108
TECH. PRONYCH	RIG. MAYHEW #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE-ALDER-BIRCH	ELEV.	MILE 913

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 8"		HIGH ICE
2					OL	ORGANIC CLAY		
					Cl			
4						4'		
						CLAY - SANDY SILTY MED PLASTIC	F	Vs
6								
8					Cl			LOW ICE
10								
12								
14						14'		Vx
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				FREE WATER	
				DAMP	
				DAMP	
				DAMP	

DS-14-5-74 b

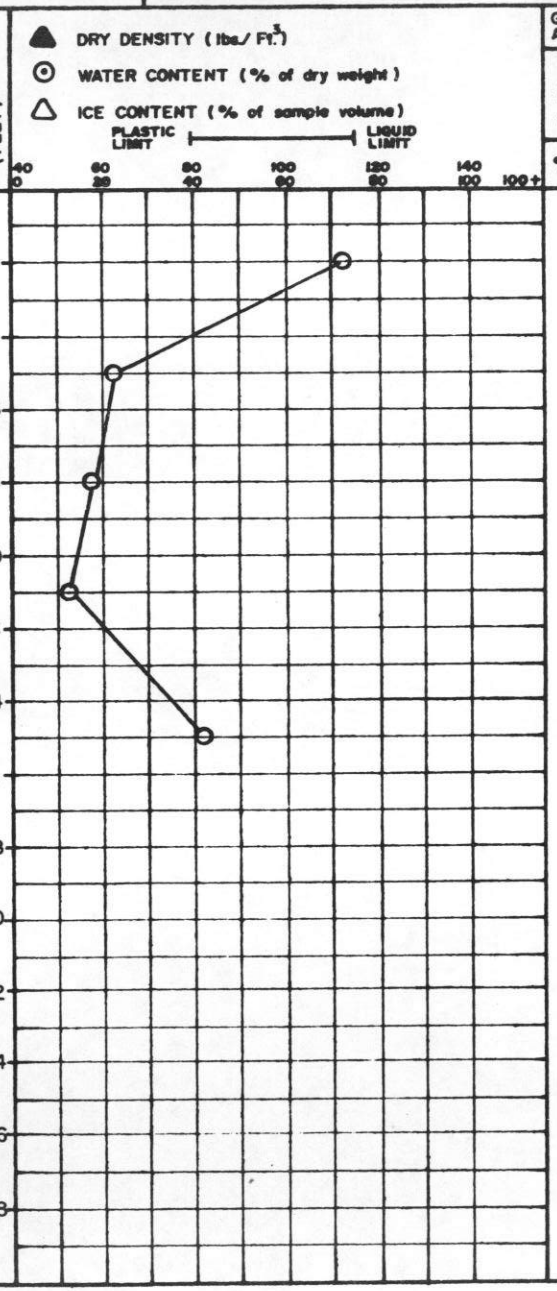
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTAN	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-190	CHAINAGE. 1196+00	OFFSET. D	TEST HOLE 109
TECH. McINTOSH	RIG MAYHEW #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE-ALDER	ELEV.	MILE 913

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT 1.1'		HIGH ICE - Vs -
4					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS MED PLASTIC		
6								
8						8'	F	MODERATE ICE
10						SHALE - SILTY SANDY HARD		Vc - Vr
12								HIGH ICE - Vs -
14						14'		
16					Cl	CLAY & SHALE 15'		
18						BOTTOM OF HOLE - 15'		
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				SAT	
				WET	
				WET	
				FREE WATER	

DS-14-5-74 b

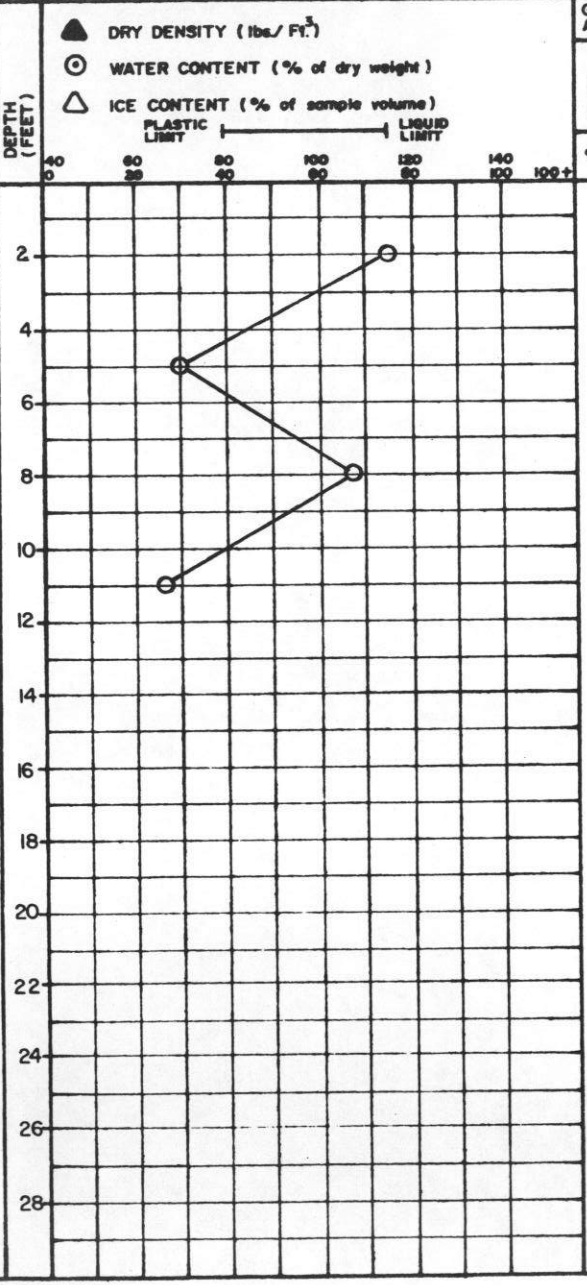
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-190	CHAINAGE. 1206+00	OFFSET. ℄	
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	TEST HOLE 110
					MILE 913

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT 2'		HIGH ICE
4						CLAY - SILTY - SANDY MED PLASTIC		
6					Cl		F	- Vs -
8								
10								MODERATE ICE
12								
14						14'		Vc - Vr
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				SAT	
				FREE WATER	
				WET	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

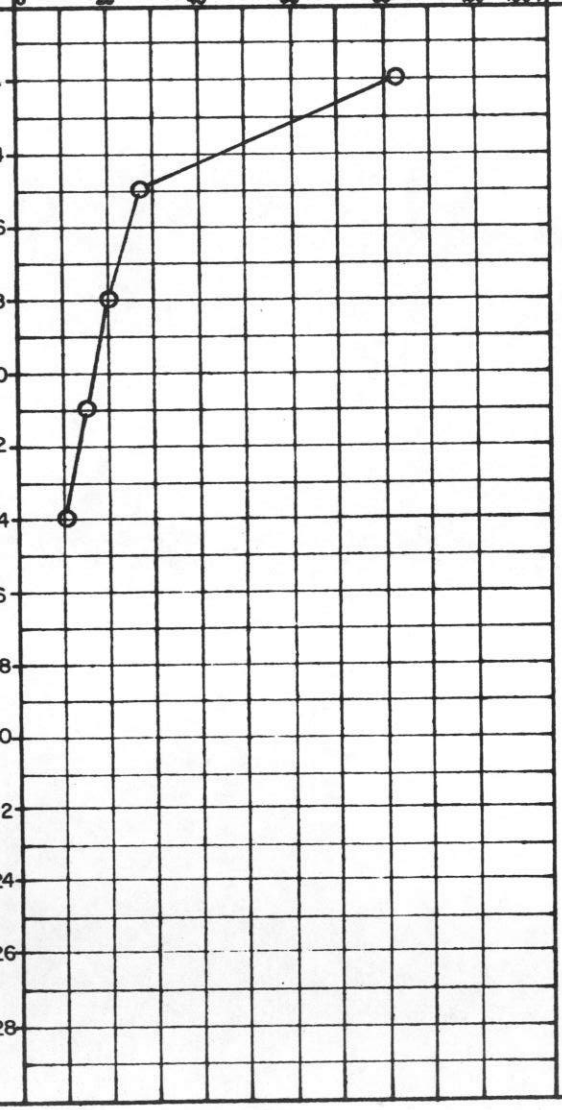
FIELD ENG. B. CONSTANT | DATE DRILLED. 28/11/73 | AIRPHOTO NO. A 22968-190 | CHAINAGE. 1215+50 | OFFSET. D

TECH. BAINE | RIG. MAYHEW #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 111

MILE 912

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		HIGH
2						CLAY-SILTY - ORG TO 4' -SANDY		ICE
4					CL	LOW - MED PLASTIC	F	
6								- Vs -
8					Cl	SANDSTONE FRAGS.		MODERATE TO LOW ICE
10								Vc - Vs
12								Vx
14						14' BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				FREE WATER	
				WET	
				WET	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

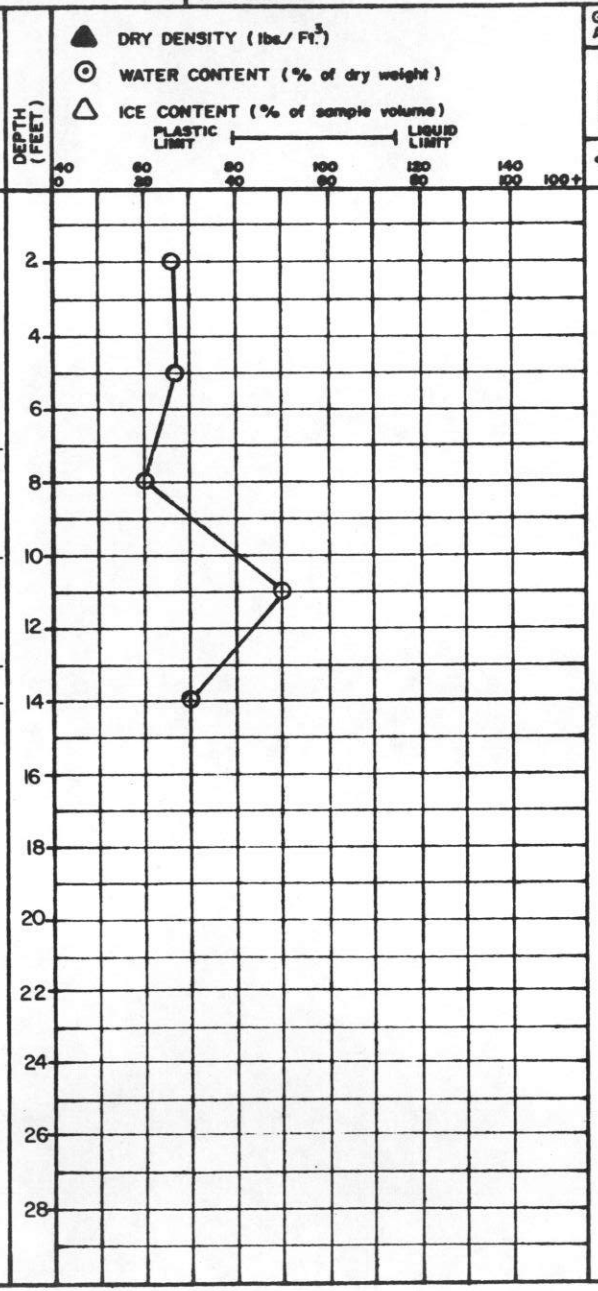
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-190	CHAINAGE. 1227+50	OFFSET. D
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 112

MILE 912

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		HIGH ICE
2					CL	CLAY - SILTY SANDY PEBBLES LOW PLASTIC		Vs
4								
6							F	
8					Cl	MED HIGH PLASTIC		LOW ICE Vx
10								HIGH ICE
12					CH	SHALE & SANDSTONE FRAGS. 14'		Vs
14						BOTTOM OF HOLE - 14'		Vc - Vr
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				SAT	
				MOIST	
				SAT	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

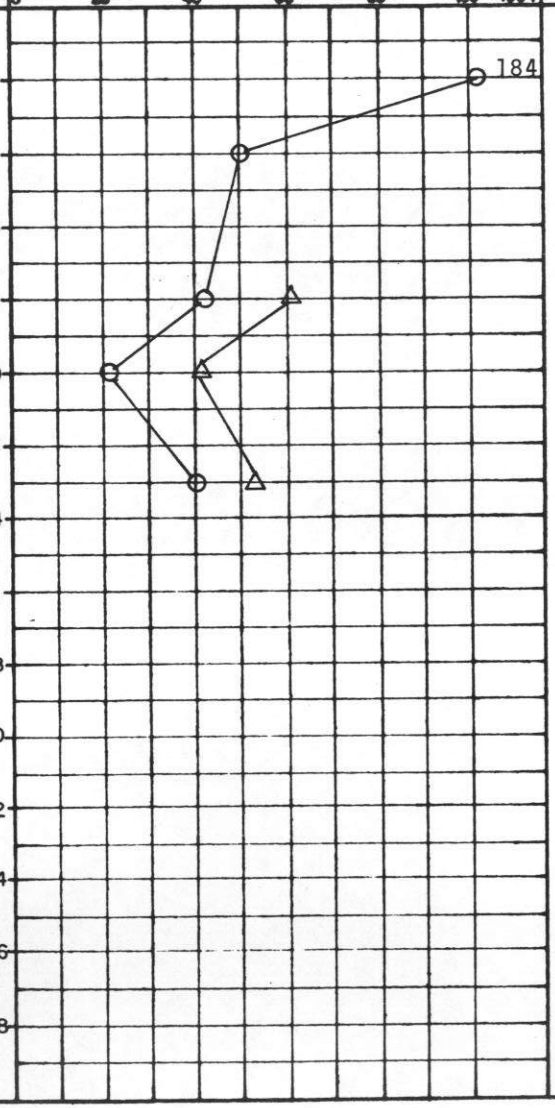
FIELD ENG. B. CONSTANT | DATE DRILLED. 28/11/73 | AIRPHOTO NO. A 22968-190 | CHAINAGE. 1227+50 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 112-A

MILE 912

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1.3'		
2					ML	SILT -Clayey Organic Low plastic — 4'	F	Vs
4								
6						CLAY -Sandy Silty Shale fragments		
8					CI	Med to high plastic Pebble 1½" Dia.		
10					CH			Nbn
12								
14						— 15'		Vr
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water Sat. Damp

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

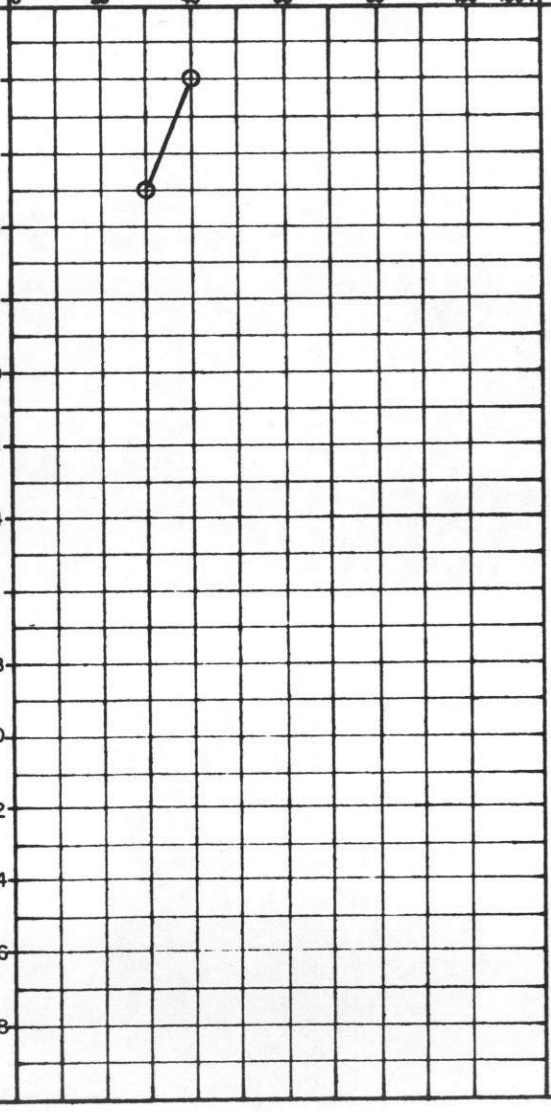
FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-190	CHAINAGE. 1238+00	OFFSET. D
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 113

MILE 912

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT 1.5'		HIGH	
2						CLAY - SILTY SANDY		ICE	FREE WATER
4					Cl	MED PLASTIC	F	- Vs -	SAT
6									
8									
10									
12						ICE		ICE	
14						14'			
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

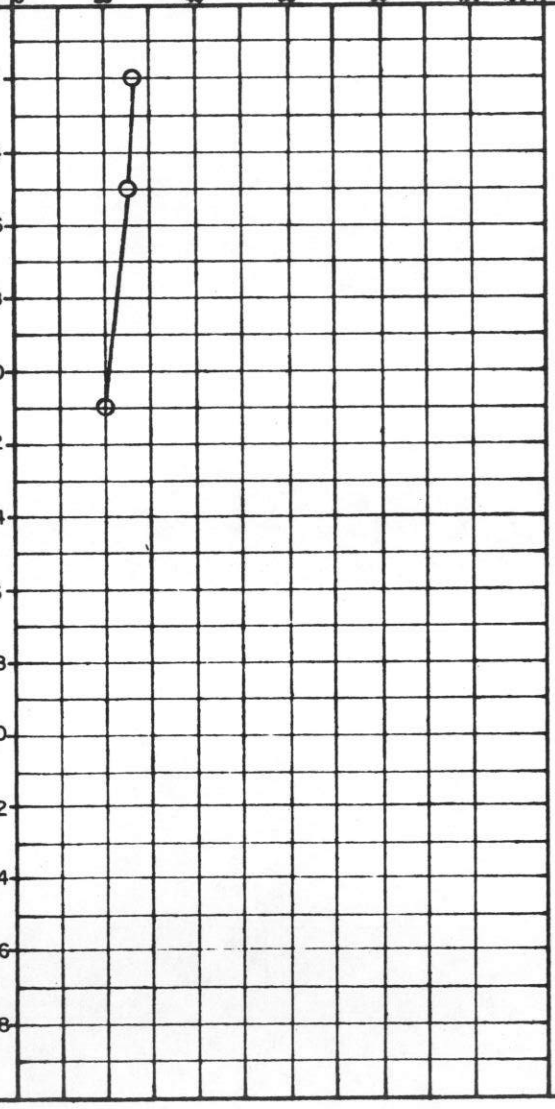
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-192	CHAINAGE. 1249+00	OFFSET. B
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE. GOOD	VEGETATION.	ELEV.

TEST HOLE 114

MILE 912

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1.5'		MODERATE	
2						CLAY - SILTY - SANDY SHALE FRAGMENTS			MOIST
4					CL	LOW - MED PLASTIC			SAT
6									
8					Cl	PEBBLES	F	Vc - Vr	
10									MOIST
12									
14						14'			
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-192	CHAINAGE. 1262+00	OFFSET. D
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 115

MILE 910

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		HIGH
2						CLAY - SILTY SAND		ICE
4						PEBBLES SHALE & SILTSTONE FRAGS BOULDERS		
6							F	- Vs -
					Cl	MED PLASTIC		
8						BOULDERS		LOW
10								ICE
12								Vx
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

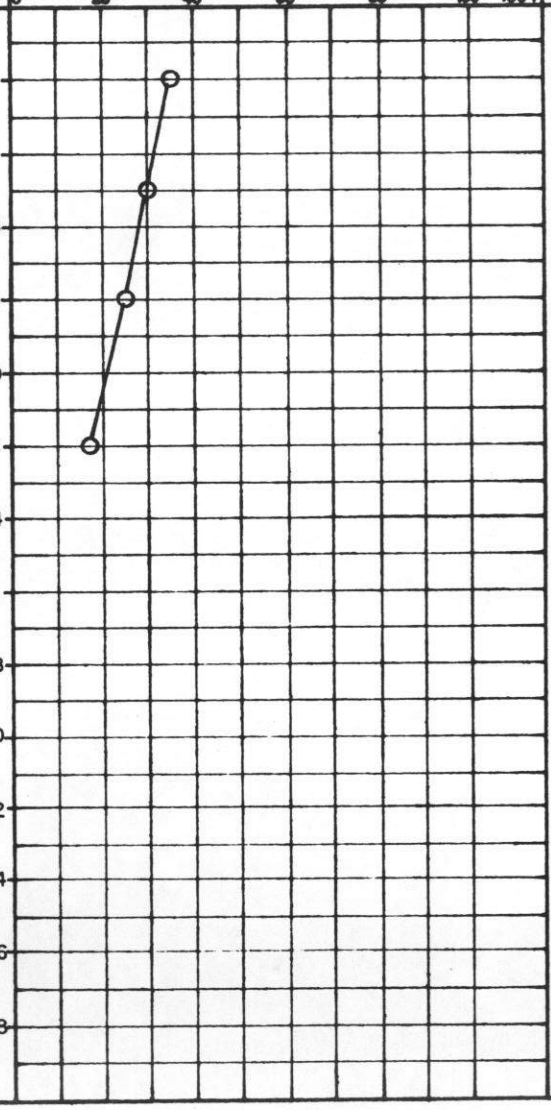
DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})

⊙ WATER CONTENT (% of dry weight)

△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				FREE WATER
				SAT
				MOIST
				MOIST

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-192	CHAINAGE. 1274+00	OFFSET. D	TEST HOLE 116
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE. GOOD	VEGETATION.	ELEV.	MILE 911

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		HIGH ICE
2						CLAY - SILTY - SANDY		Vs
4					CL	LOW - MED PLASTIC BOULDERS 5' - 8'	F	MODERATE ICE Vc - Vr
6					Cl	SILTSTONE FRAGS 50%		
8								
10						ICE		ICE
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

156

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				WET	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

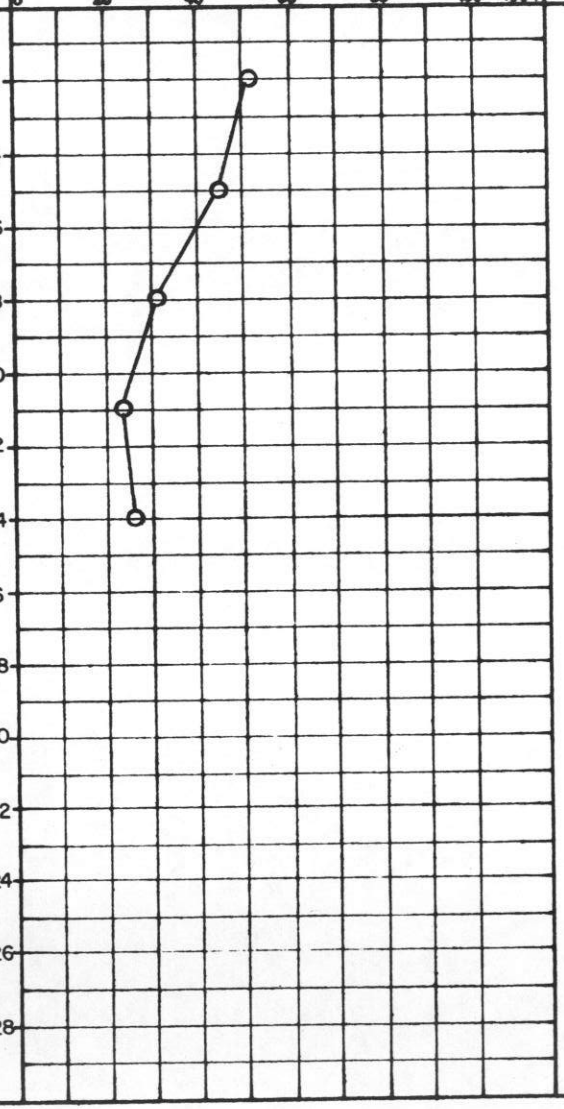
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-192	CHAINAGE. 1284+00	OFFSET. D	TEST HOLE 117
TECH. BAINE	RIG MAYHEW #1	SURFACE DRAINAGE. GOOD	VEGETATION.	ELEV.	MILE 911

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT 1'		HIGH ICE					FREE WATER	
4						CLAY - SILTY - SANDY MED PLASTIC							FREE WATER	
6					Cl		F	- Vs -					SAT	
8														
10								MODERATE ICE					MOIST	
12														
14						14'		Vc - Vr					MOIST	
16						BOTTOM OF HOLE								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 100+



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

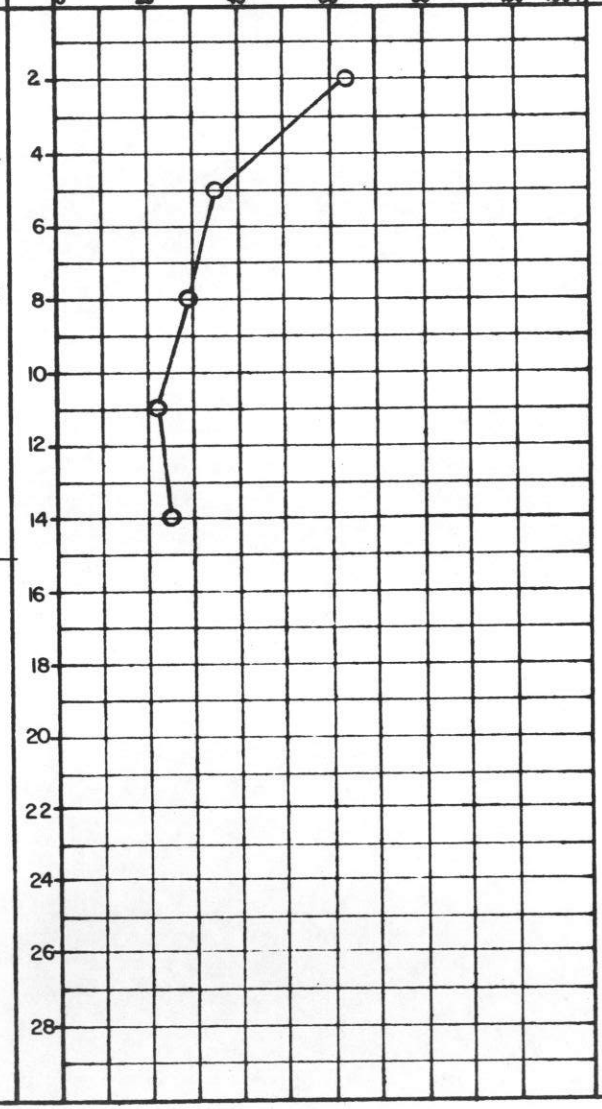
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-122	CHAINAGE. 1294+50	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.

TEST HOLE 118

MILE 911

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1.2'		HIGH ICE
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS MED PLASTIC	F	Vs
4								MODERATE ICE
6								Vc-Vr
8								
10								
12								
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT	REMARKS
FREE WATER	
MOIST	
MOIST	
MOIST	
MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 29/11/73 | AIRPHOTO NO. A 22968-122 | CHAINAGE. 1294+50 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 118-A

MILE 911

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
1.2'								
2					CI	CLAY -Silty organic Free water Med plastic		
5'								
6						CLAY -Sandy Silty Pebbles from 10' down Med plastic	F	Vs
10					CI			
14'								
14						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140
0 20 40 60 80 100 100+

118.3

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water Free Water	

DS-14-5-74 b

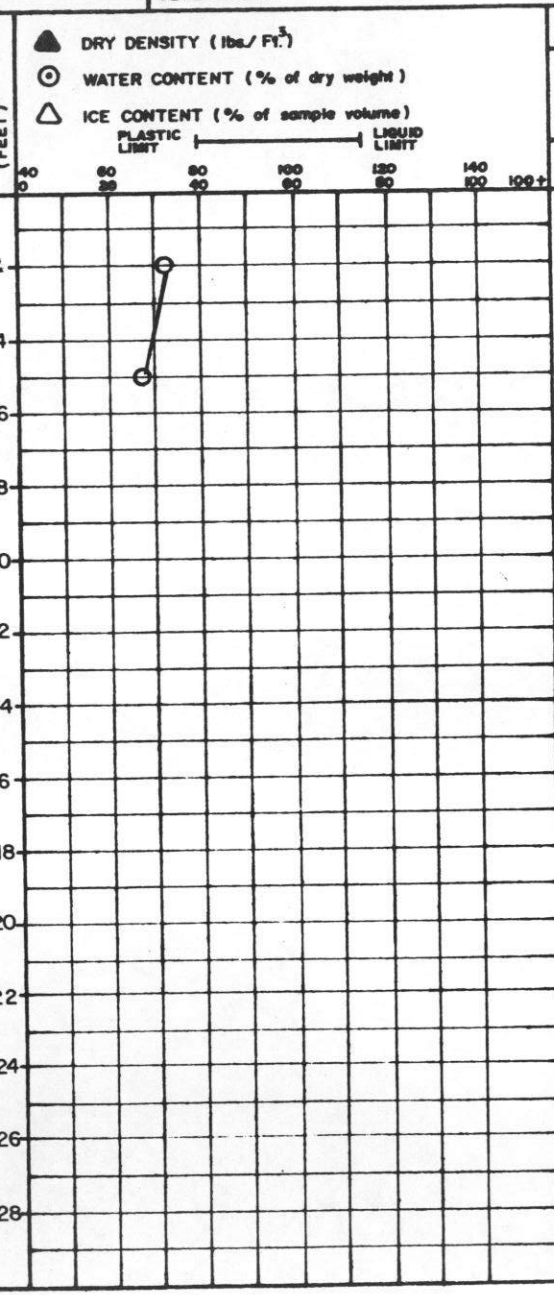
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-122	CHAINAGE. 1305+00	OFFSET. L	TEST HOLE 119
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE. GOOD	VEGETATION.	ELEV.	MILE 911

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1'		HIGH TO						
2						CLAY - SILTY SANDY SHALE FRAGMENTS							WET	
4					Cl		F	- Vs - MODERATE ICE					SAT	
6								Vc - Vr						
8														
10						ICE		ICE						
12														
14						14' BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-122	CHAINAGE. 1313+00	OFFSET. D
TECH.	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 120

MILE 911

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1'		HIGH ICE					FREE WATER
2					Cl	CLAY - SILTY - SANDY - PEBBLES LOW - PLASTIC	F	- Vs -					FREE WATER
4													
6													
8						ALTERNATING LAYERS OF ICE & CLAY 14'		ICE & Cl					FREE WATER
10													
12													
14						BOTTOM OF HOLE - 14'							
16													
18													
20													
22													
24													
26													
28													

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-122	CHAINAGE. 1326 + 00	OFFSET. D
TECH. BAINE	RIG.	SURFACE DRAINAGE. GOOD	VEGETATION.	ELEV.

TEST HOLE 121

MILE 910

REMARKS

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1'		MODERATE ICE					WET
2						CLAY - SILTY - SANDY MED PLASTIC							WET
4													
6					Cl		F	- Vs -					WET
8													
10								Vc - Vr					MOIST
12													
14						BOTTOM OF HOLE							
16													
18													
20													
22													
24													
26													
28													

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

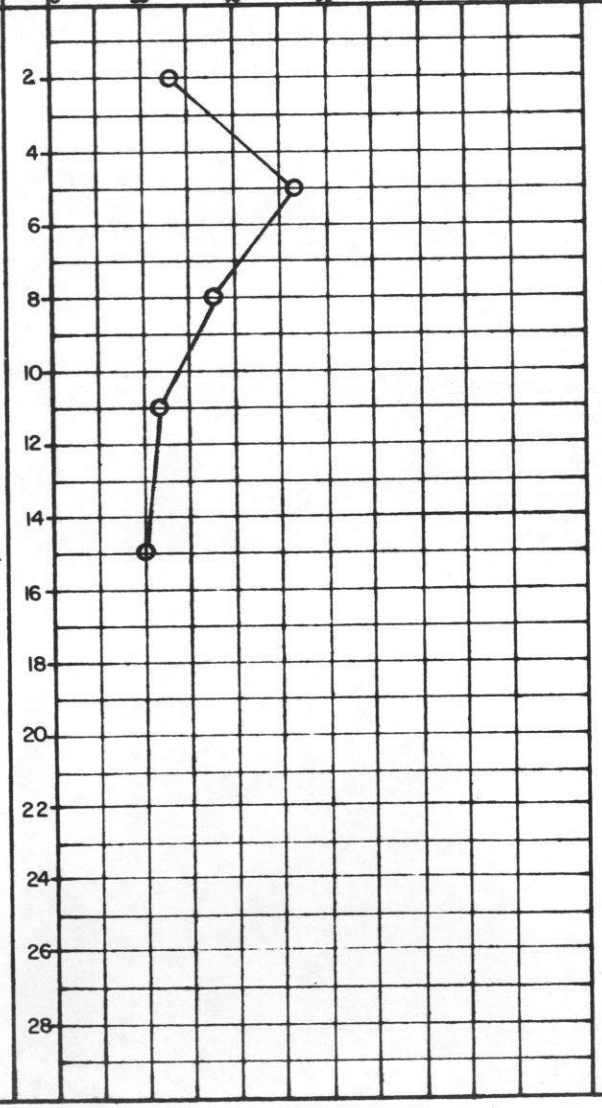
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-122	CHAINAGE. 1336 + 00	OFFSET. E	TEST HOLE 122
TECH. McINTOSH	RIG.	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 3"	ELEV.	MILE 910

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .9'		HIGH ICE
2						CLAY - SANDY - SILTY		
4								
6					Cl	MED-HIGH PLASTIC		- Vs -
8							F	
10						PEBBLES		MODERATE ICE
12								
14						15'		Vc - Vr
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					WET
4					WET
8					SAT
10					MOIST
14					MOIST

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 28/11/73	AIRPHOTO NO. A 22968-122	CHAINAGE. 1336+00	OFFSET. ℄	TEST HOLE 122-A
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE 3" MAX.	ELEV.	MILE 910

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 9"		
2						CLAY		Ice Lenses
4					CI	-Silty Medium plastic		Vs
6							F	
8								Vs
10								
12								
14								
						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

REMARKS

DS-14-5-74 b

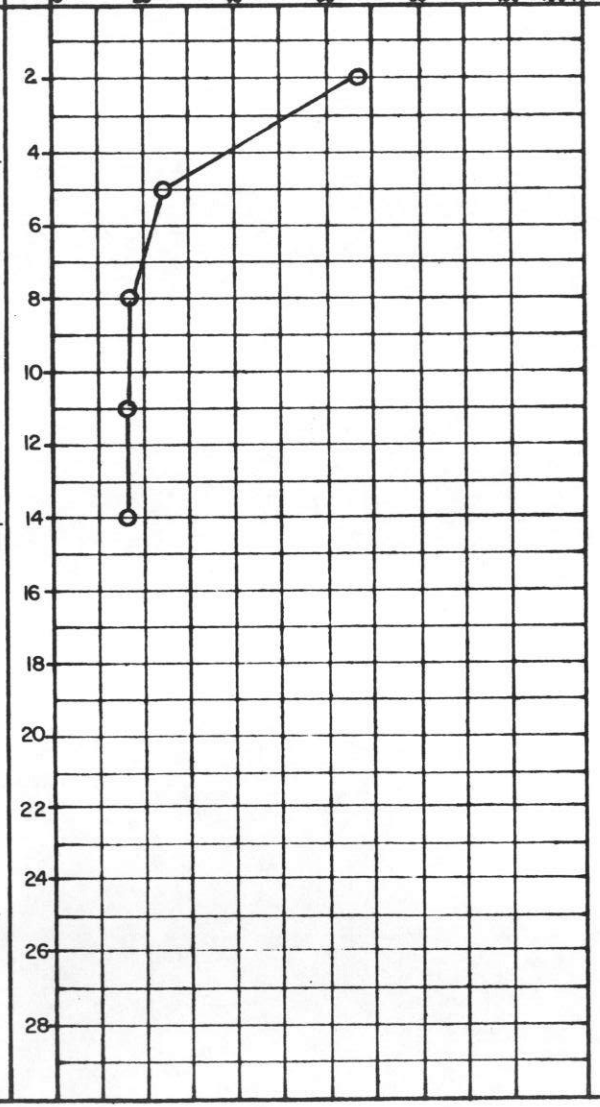
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1345 + 50	OFFSET. ℄	TEST HOLE 123
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 910

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		HIGH ICE
2						CLAY - SANDY - SILTY - PEBBLES		Vs
4						MED PLASTIC	F	
6					Cl			
8								LOW ICE
10								
12								Vx
14						14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				WET	
				MOIST	
				MOIST	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1355 + 00	OFFSET. D
TECH. BAINE	RIG. MAYHEW #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 124

MILE 910

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1'		MODERATE ICE					MOIST	
2						CLAY - SANDY - SILTY - PEBBLES - MED. PLASTIC		Vc - Vr					MOIST	
4														
6					Cl		F						MOIST	
8								LOW ICE						
10													MOIST	
12								Vx						
14						14'								
16						BOTTOM OF HOLE								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160 180+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

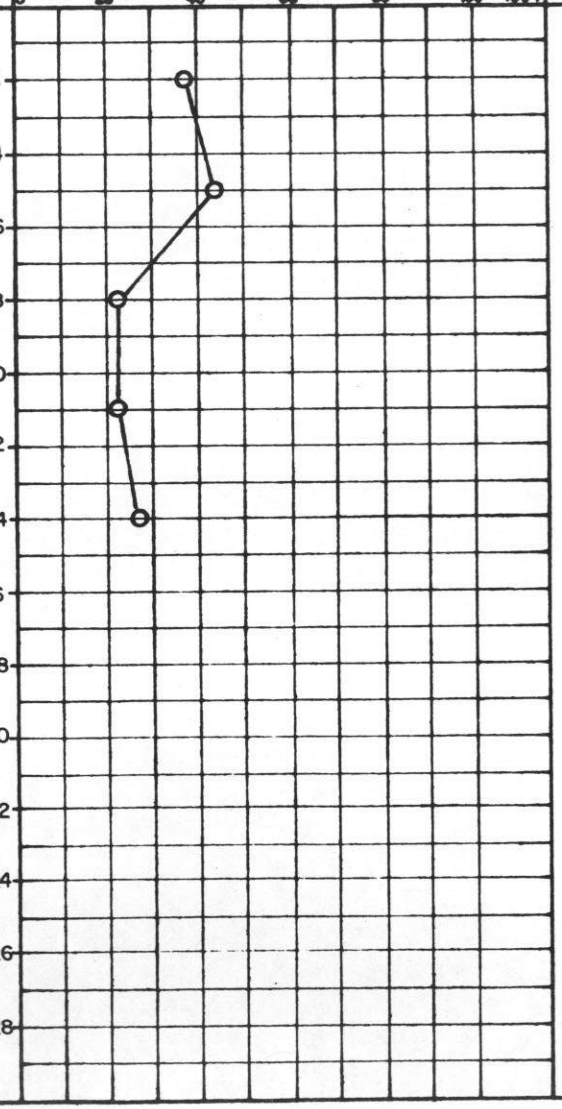
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1363 + 00	OFFSET. Ⓒ
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 6"	ELEV.

TEST HOLE 125

MILE 910

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1.0'		HIGH ICE
2						CLAY - SANDY - SILTY		
4								-Vs-
6					Cl	- PEBBLES MED PLASTIC	F	
8								LOW ICE
10								
12								Vx
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				SAT
				SAT
				MOIST
				MOIST
				MOIST

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1374 + 00	OFFSET. Ɫ	TEST HOLE 126
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 4"	ELEV.	MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	REMARKS
0					Pt	PEAT 1'		HIGH	SAT					
2						CLAY - SANDY - SILTY - PEBBLES								
4						MED PLASTIC	F		WET					
6								- Vs -						
8					Cl	COBBLES @ 5'		MODERATE ICE	MOIST					
10						BOULDERS @ 10'			SAT					
12								Vc - Vr						
14						14'			WET					
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 160+

DS-14-5-74 b

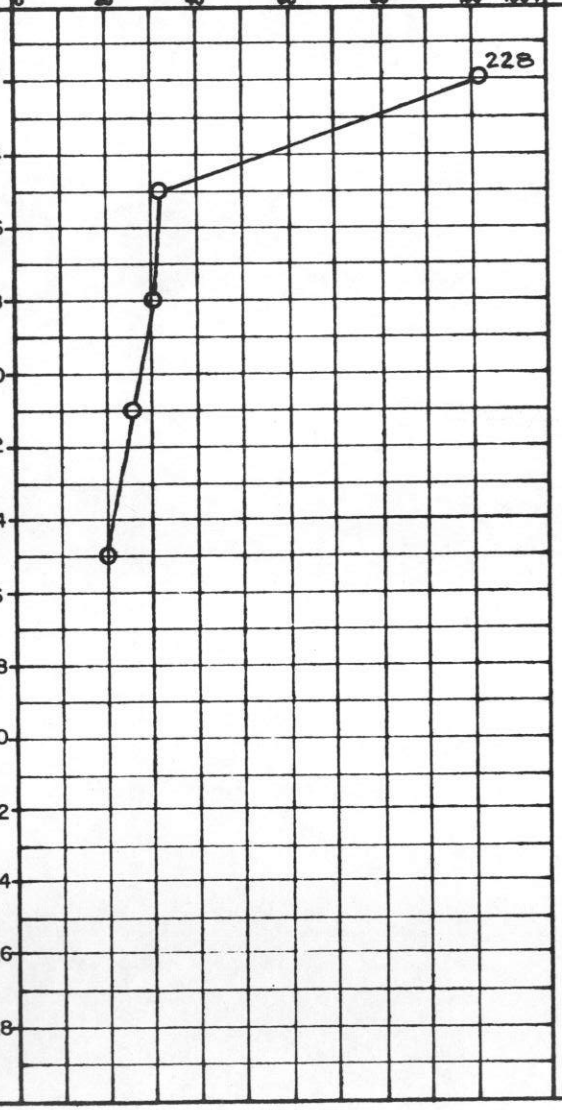
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1384 + 00	OFFSET. D	TEST HOLE 127
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 3"	ELEV.	MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT 3'		HIGH ICE
4						CLAY - SANDY - SILTY - PEBBLES	F	- Vs -
6						MED PLASTIC		
8					Cl			
10								MODERATE ICE
12								
14						15'		Vc - Vr
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				SAT	
				SAT	
				WET	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 29/11/73 | AIRPHOTO NO. A 22968-120 | CHAINAGE. 1384+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 2½" | ELEV.

TEST HOLE 127-A

MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					CL CI	CLAY -Sandy Silty Organic Free water	F	Vs
4						4' Water in Hole at 3' BOTTOM OF HOLE - 4'		
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160 100+

123.0

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water Free Water	

DS-14-5-74 b

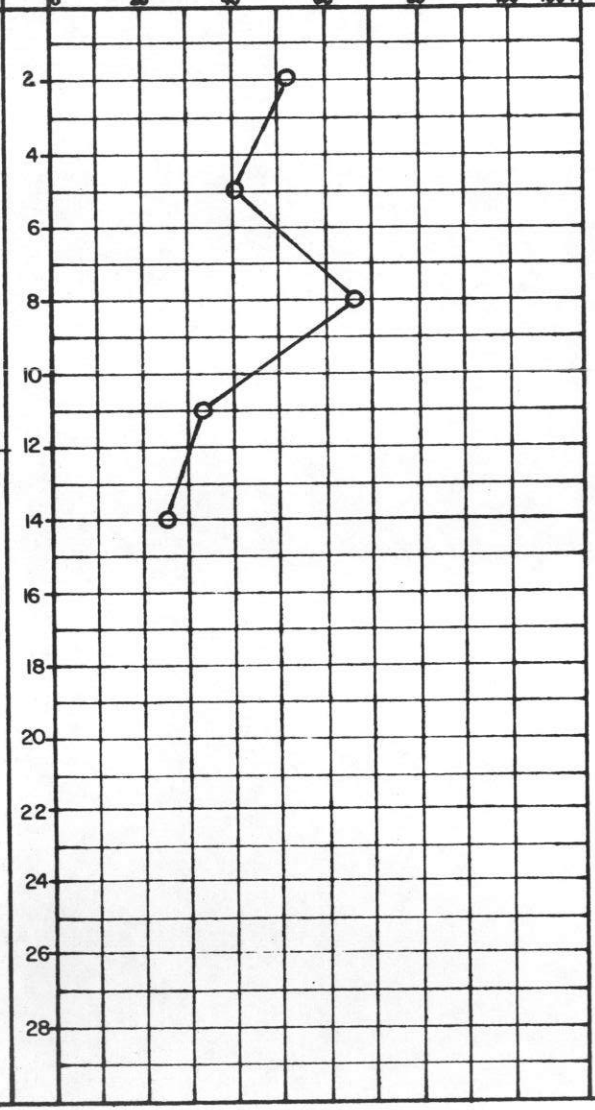
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1393 + 00	OFFSET. E	TEST HOLE 128
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 4"	ELEV.	MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 6"		
2						CLAY - SANDY - ORG - SILTY - PEBBLES		HIGH ICE
4						MED PLASTIC		
6					Cl		F	- Vs -
8								
10						ORGANICS		
12								MODERATE Vc - Vr
14						SOME ORG. 14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				SAT	
				FREE WATER	
				SAT	
				WET	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

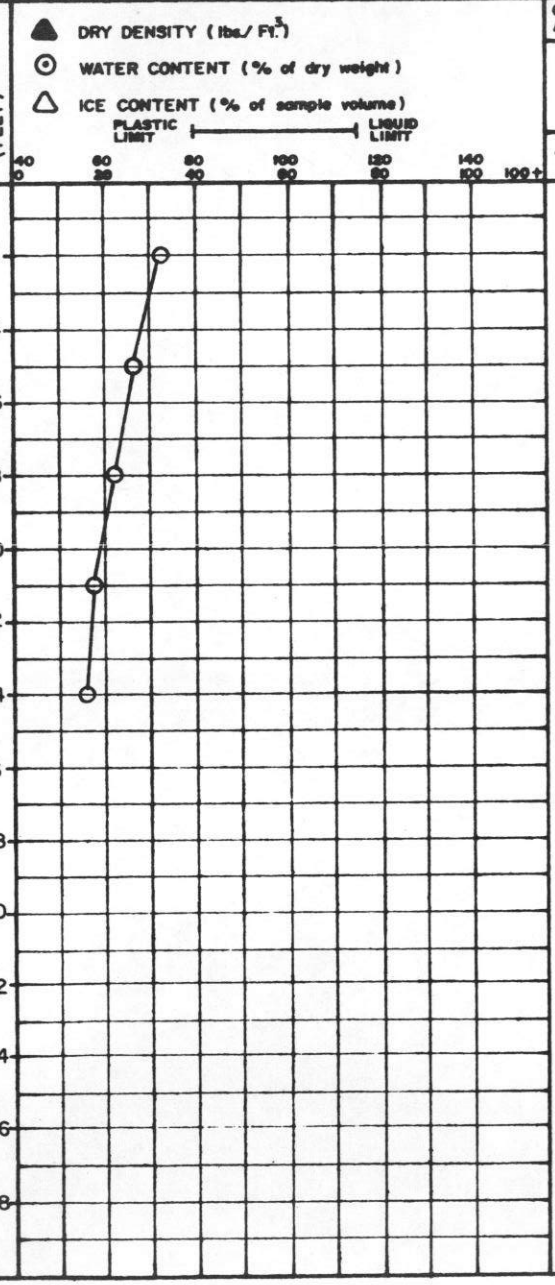
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1404 + 00	OFFSET. D
TECH. McINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX 3"	ELEV.

TEST HOLE 129

MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1.3'		
2						CLAY - ORGANICS TO 4'		MODERATE
4						- SANDY		
6						- SILTY		ICE Vc - Vr
8					Cl	- PEBBLES	F	- Vs -
10								
12								LOW ICE
14						15'		Vx
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				MOIST	
				MOIST	
				MOIST	
				MOIST	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

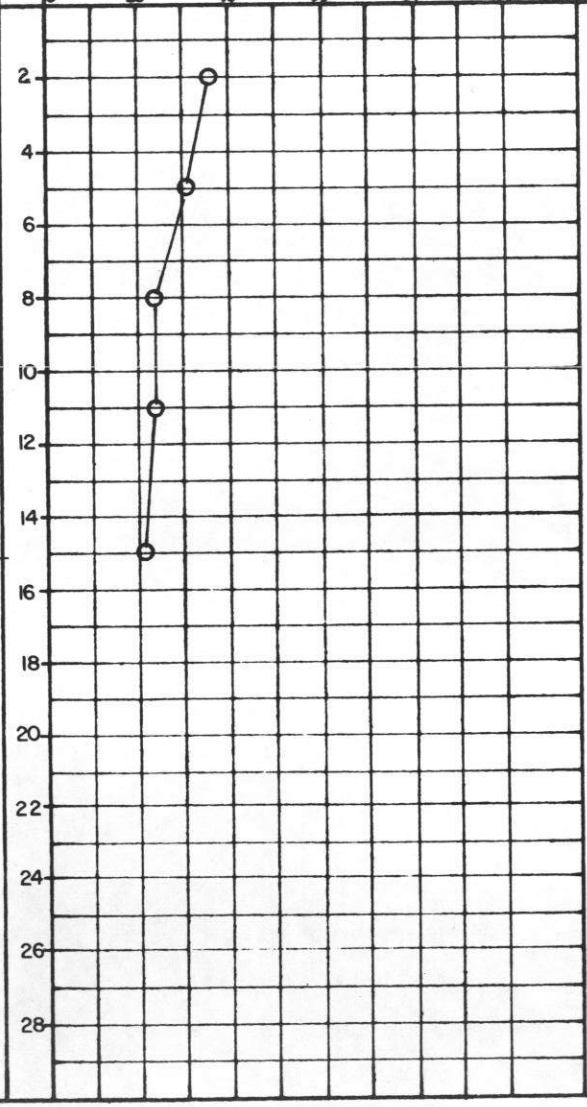
FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-120	CHAINAGE. 1424 + 00	OFFSET. Ⓓ
TECH. MCINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX 3"	ELEV.

TEST HOLE 130

MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 8"								
2						CLAY - ORGANICS TO 4'		MODERATE					WET	
4						- SANDY		ICE						
6						- SILTY							SAT	
8						PEBBLES								
10					Cl	MED PLASTIC	F						WET	
12								Vc - Vr					MOIST	
14						15'							MOIST	
16						BOTTOM OF HOLE								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

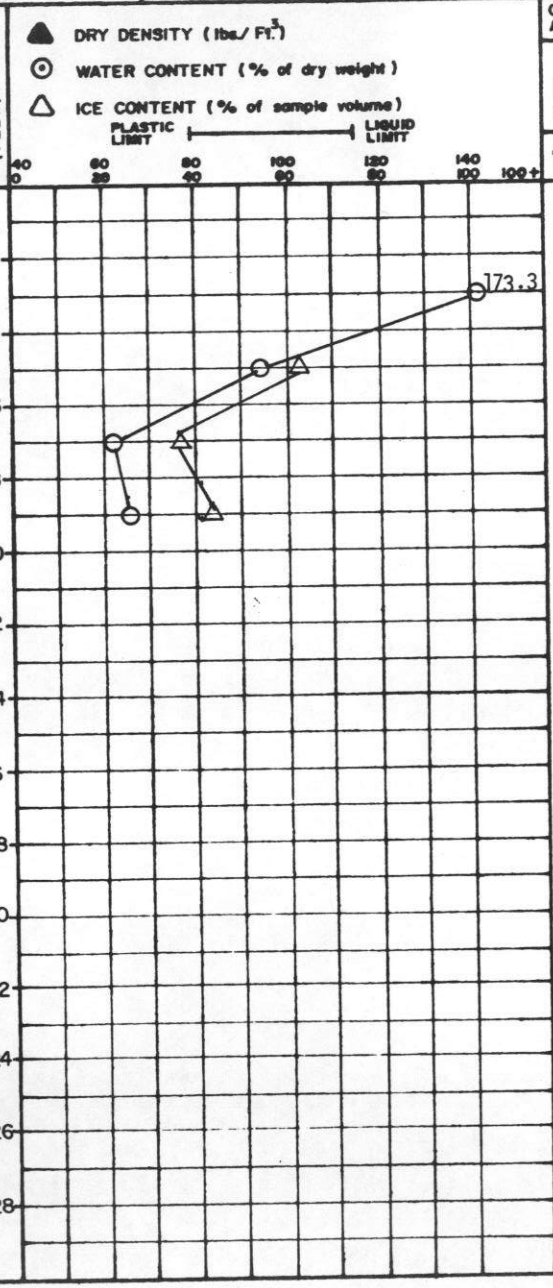
FIELD ENG. B. CONSTANT | DATE DRILLED. 30/11/73 | AIRPHOTO NO. A 22968-120 | CHAINAGE. 1424+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 3" | ELEV.

TEST HOLE 130-A

MILE 909

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT —.8'		
2						CLAY		Vs
4						-Sandy		
6					CI	Silty Pebbles Shale fragments Med plastic Free water to 6'		Ice Lenses To 3/4"
8								
10						—10'		
12						BOTTOM OF HOLE - 10'		
14								
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

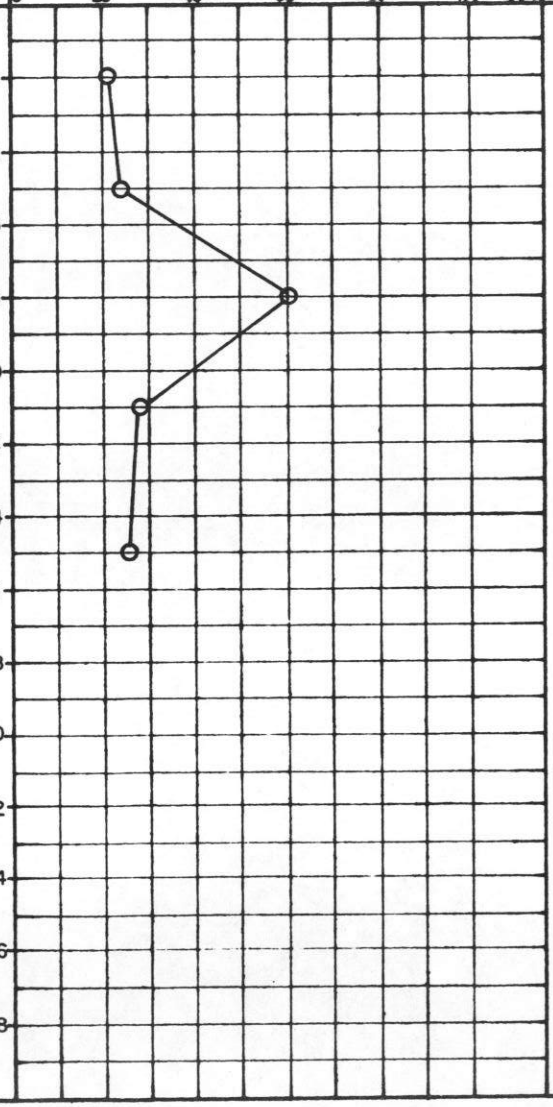
FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-40	CHAINAGE. 1433 + 00	OFFSET. D
TECH. MCINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE.	VEGETATION. SPRUCE MAX 6"	ELEV.

TEST HOLE 131

MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT .6'		MODERATE ICE					WET	
2						CLAY - SANDY - SILTY - PEBBLES								
4						LOW - MED. PLASTIC		Vc - Vr					WET	
6					CL		F	- Vs -						
8						GRAVELLY		HIGH ICE					FREE WATER	
10					Cl	SILTY SANDY							SAT	
12														
14						15'		Vc - Vr					WET	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 160 180+



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

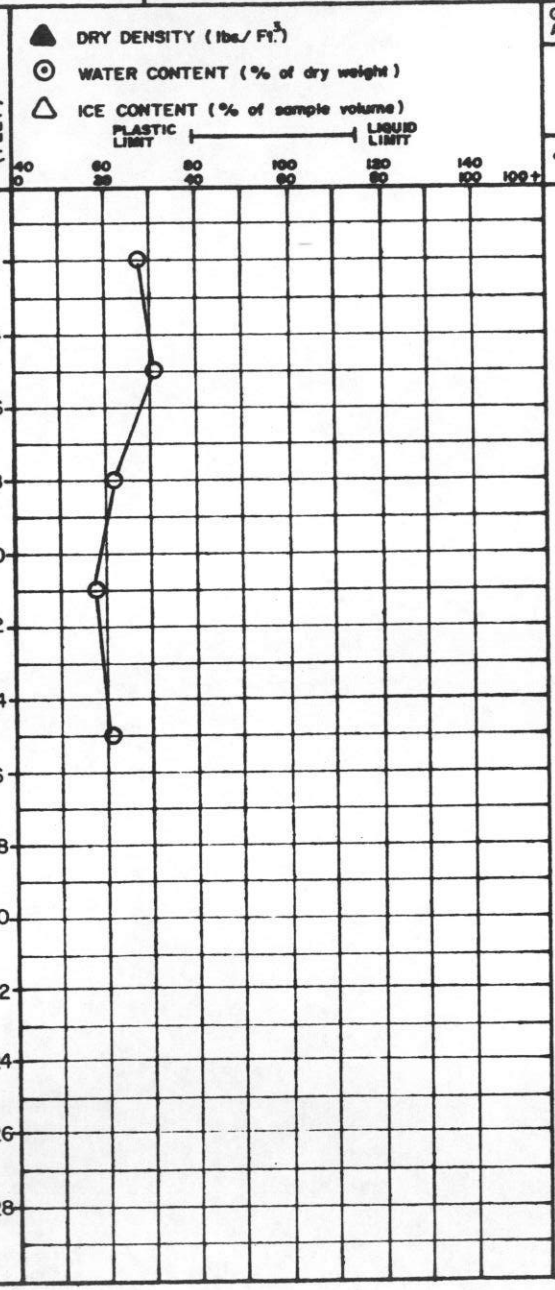
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-40	CHAINAGE. 1441 + 50	OFFSET. Ω
TECH. MCINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 4"	ELEV.

TEST HOLE 132

MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .9'		HIGH ICE
2						CLAY - SANDY SILTY PEBBLES		Vs
4					CL	LOW PLASTIC		MODERATE
6					Cl	MED PLASTIC	F	
8								ICE
10								Vc - Vr
12								
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					FREE WATER	
4					WET	
6						
8					WET	
10					MOIST	
12						
14					WET	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

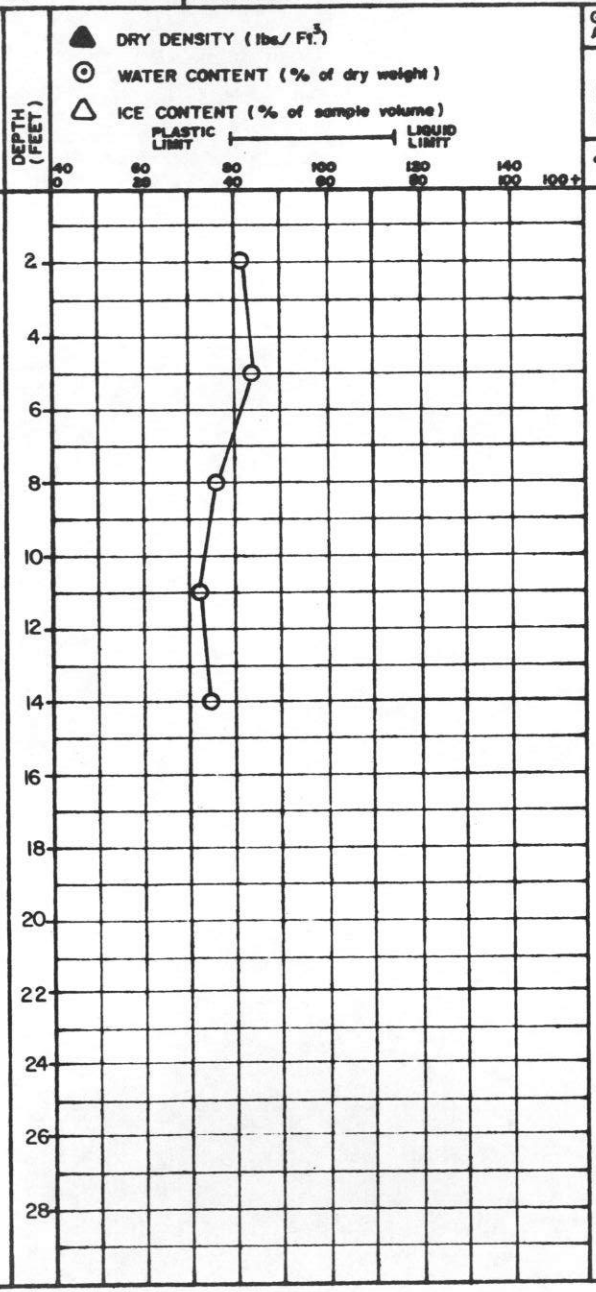
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1450 + 00	OFFSET. D
TECH. MCINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 8"	ELEV.

TEST HOLE 133

MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT .7'		HIGH ICE	
2						CLAY - SANDY - SILTY			FREE WATER
4					CL	- PEBBLES LOW PLASTIC			FREE WATER
6							F		
8					CL	LOW - MED PLASTIC		- Vs -	SAT
10					Cl			MODERATE ICE	MOIST
12									
14						15'		Vc - Vr	WET
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1459 + 00	OFFSET. B	TEST HOLE 134
TECH. MCINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE.	VEGETATION. SPRUCE MAX 6"	ELEV.	MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .8'		HIGH ICE
2						CLAY - SANDY - ORG to 4' - SILTY - PEBBLES		
4						HIGH - MED PLASTIC		- Vs -
6					Cl		F	
8								MODERATE ICE
10								Vc - Vr
12								
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				SAT	
				MOIST	
				MOIST	

DS-14-5-74 b

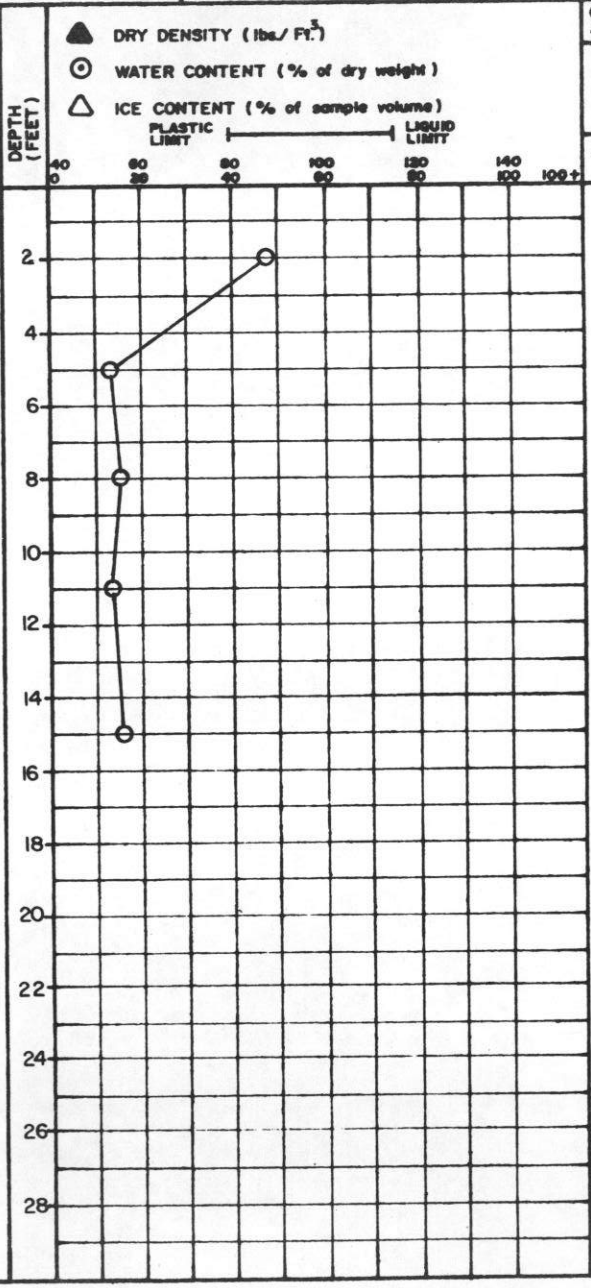
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1465+00	OFFSET. D	TEST HOLE 135
TECH. MCINTOSH	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 8"	ELEV.	MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .4'		HIGH ICE
2						CLAY - ORGANIC TO 4'		Vs
4						- SANDY SILTY SHALE FRAGMENTS		
4					Cl	LOW-MED PLASTIC		LOW
6						PEBBLES	F	
8								
10								ICE
12								Vx
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				SAT
				WET
				WET
				MOIST
				MOIST

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1465+00	OFFSET. ℄	TEST HOLE 135-A
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 8"	ELEV.	MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					OL ML	SILT -Organic Pebbles — 2' Due to cobbles unable to penetrate deeper BOTTOM OF HOLE - 2'	F	Vs Ice Lenses 1"

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET) 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28

40 60 80 100 120 140 160+
0 20 40 60 80 100 120

166.0

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

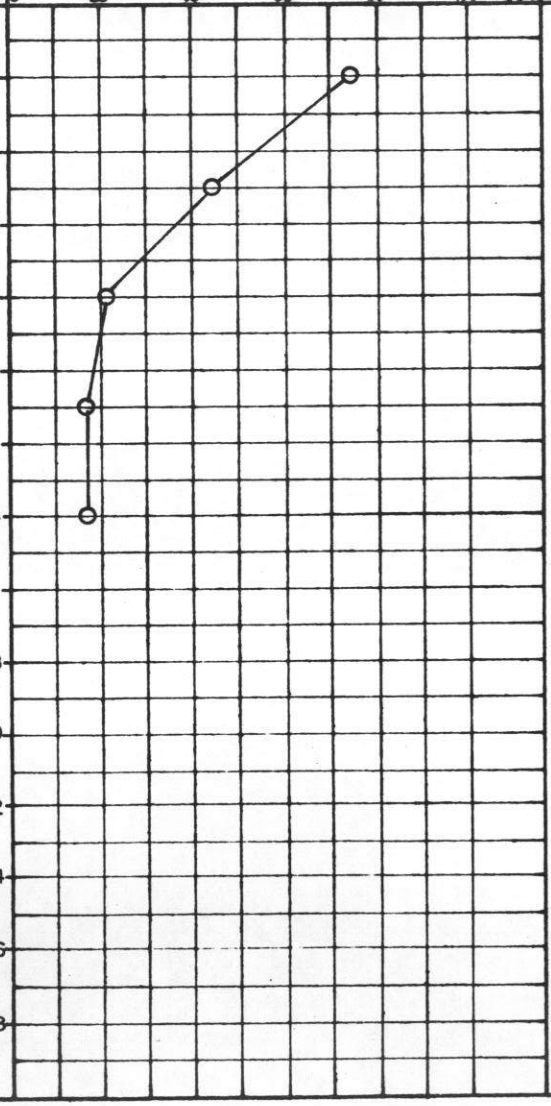
FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1473+50	OFFSET. D
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX 4"	ELEV.

TEST HOLE 136

MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT 2'		HIGH ICE					FREE WATER	
4						CLAY - SANDY SILTY SHALE FRAGMENTS		Vs					SAT	
6					Cl	MED PLASTIC	F						MOIST	
8								LOW ICE						
10													MOIST	
12								Vx						
14						14'							MOIST	
						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100



DS-14-5-74 b

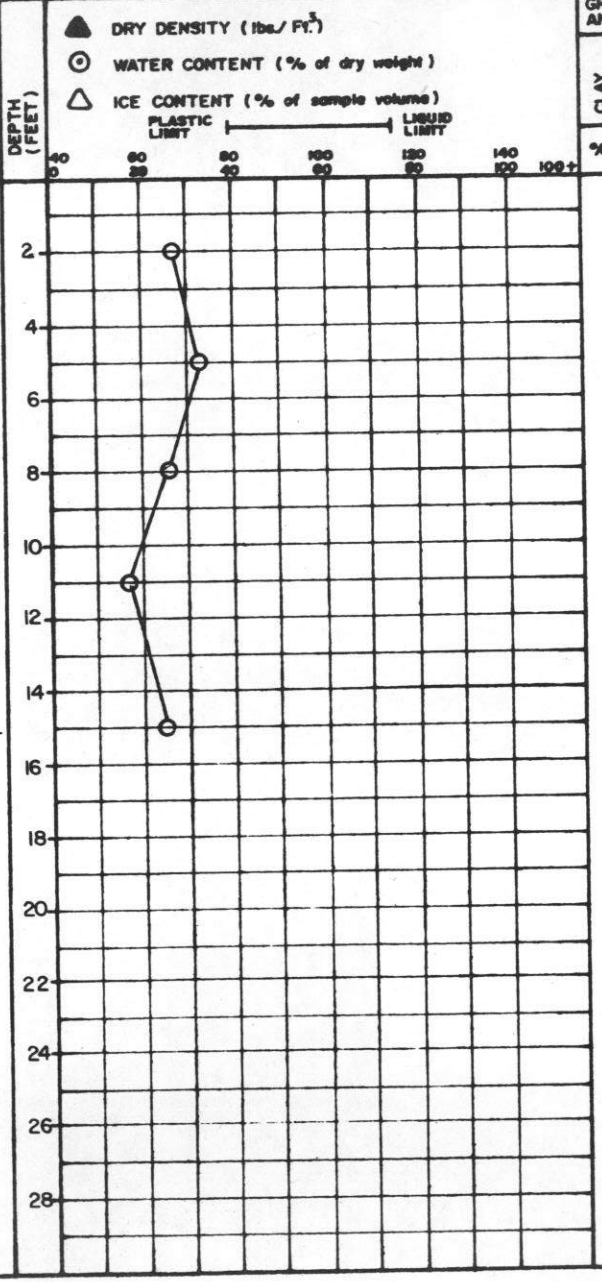
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1483+00	OFFSET. D	TEST HOLE 137
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX 3"	ELEV.	MILE 908

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		HIGH ICE
2						CLAY - SANDY - SILTY - PEBBLES MED PLASTIC		
4								
6								- Vs -
					Cl		F	
8								MODERATE ICE
10								
12								Vc - Vr
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				SAT
				SAT
				MOIST
				MOIST
				WET

REMARKS

DS-14-5-74 b

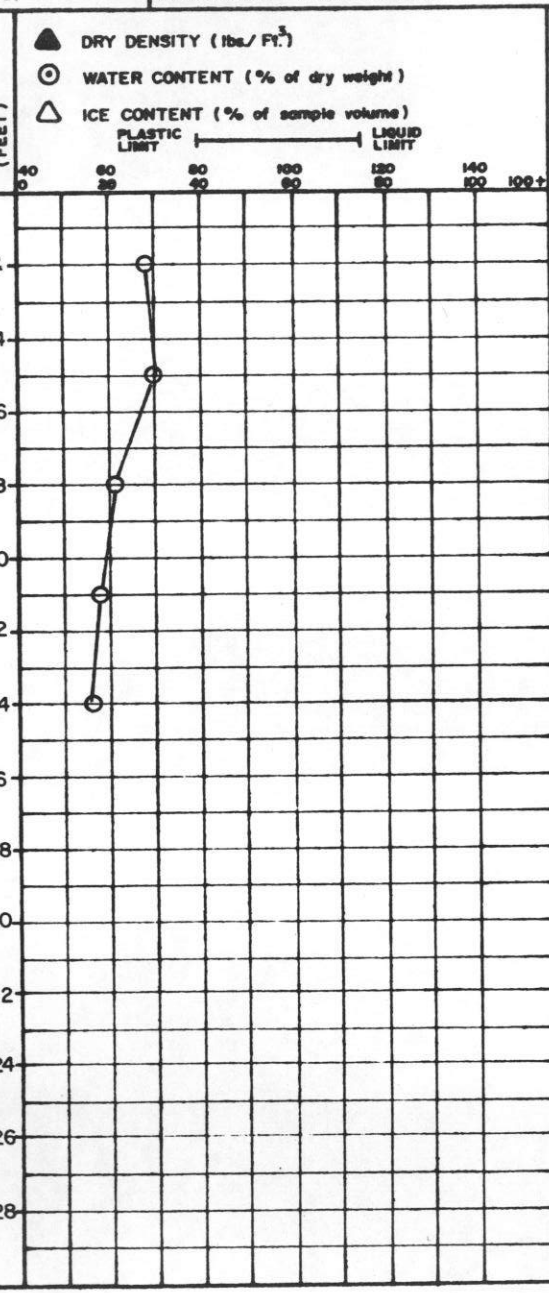
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1491+00	OFFSET. Ł	TEST HOLE 138
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX 7"	ELEV.	MILE 907

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 8"								
2						CLAY - SANDY SILTY		MODERATE					MOIST	
4						SHALE FRAGMENTS MED PLASTIC		ICE					MOIST	
6						SHALE INCREASING	F							
8					Cl	WITH DEPTH							MOIST	
10								Vc-Vr					MOIST	
12														
14						14'							MOIST	
						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

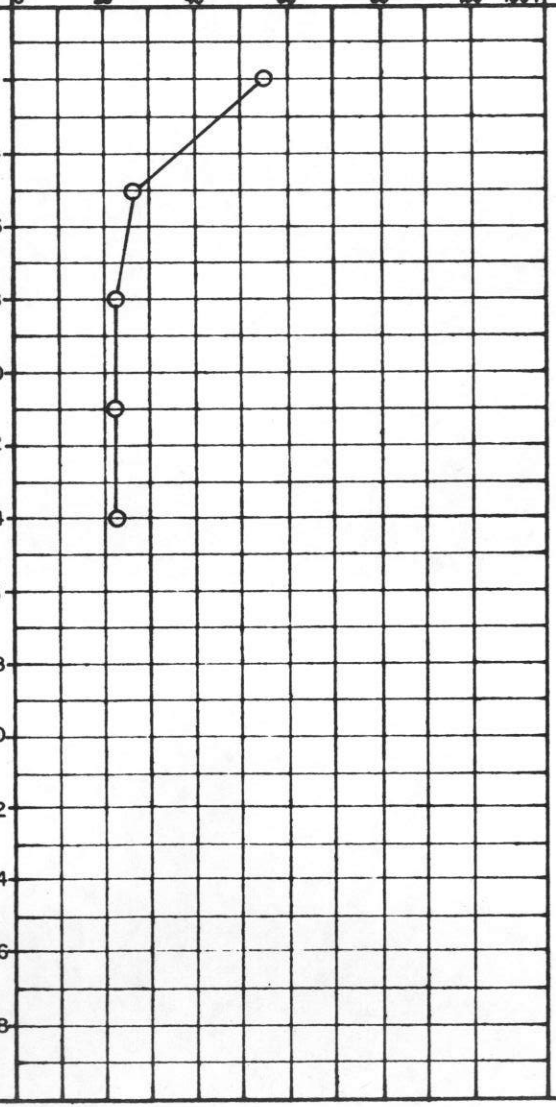
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1502+50	OFFSET. D	TEST HOLE 139
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX 6"	ELEV.	MILE 907

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.5'		HIGH ICE Vs					SAT	
2						CLAY - SANDY - SILTY HIGH PLASTIC PEBBLES								
4													WET	
6					CH		F							
8								MODERATE ICE					MOIST	
10													MOIST	
12								Vc - Vr						
14						14'							MOIST	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 30/11/73 | AIRPHOTO NO. A 22968-42 | CHAINAGE. 1514+25 | OFFSET. D

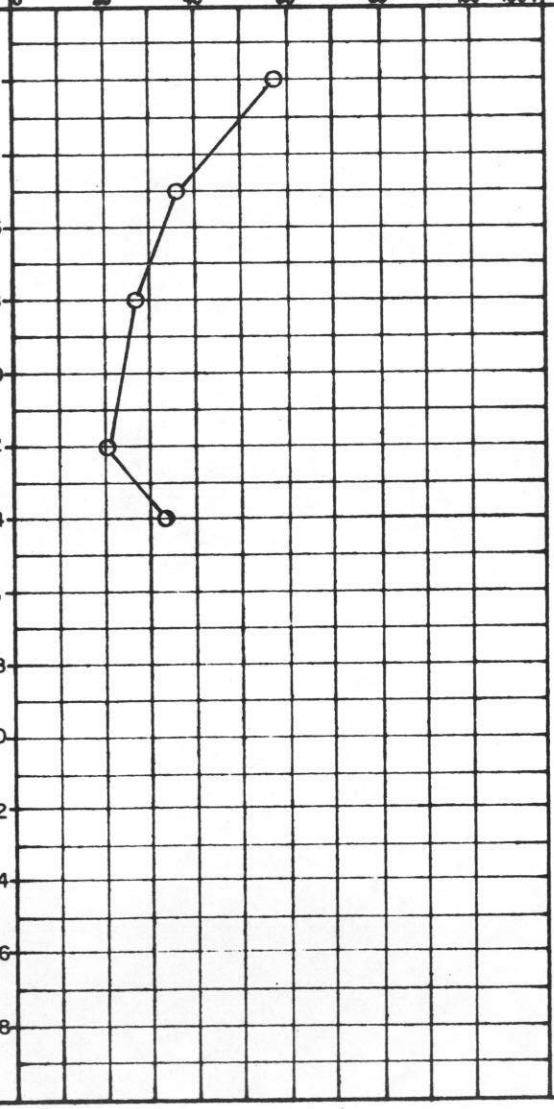
TECH. SAWCHUK | RIG. MAYHEW #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX 4" | ELEV.

TEST HOLE 140

MILE 907

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 9"		HIGH ICE						
2						CLAY - SANDY - SILTY - PEBBLES							FREE WATER	
4					CL	LOW-MED. PLASTIC							FREE WATER	
6							F	- Vs -						
8								MODERATE ICE					WET	
10					Cl									
12								Vc-Vr					MOIST	
14						14'							WET	
						BOTTOM OF HOLE - 14'								

DRY DENSITY (lbs./Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+



DS-14-5-74 b

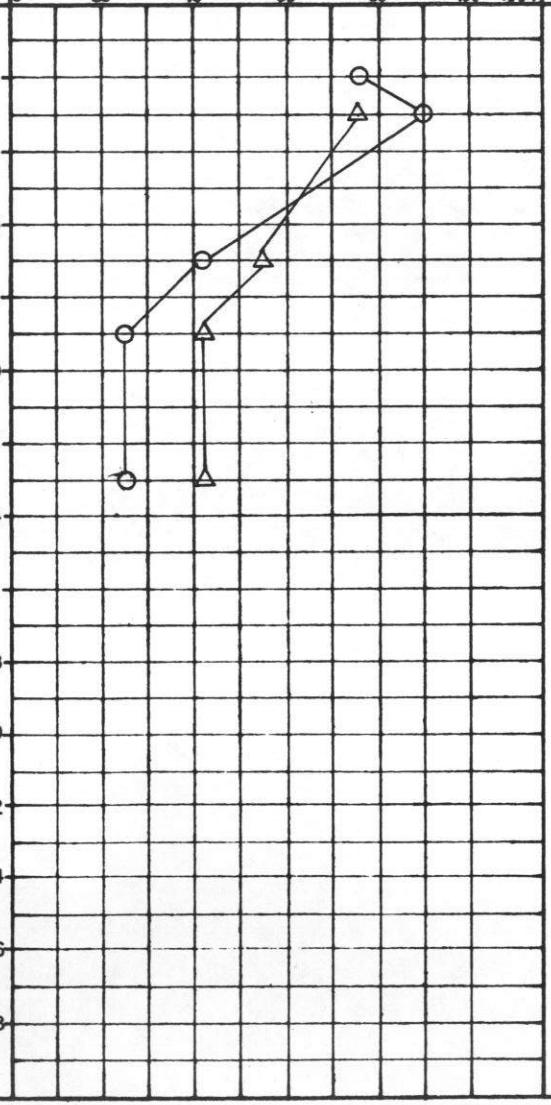
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1514+25	OFFSET. ℄	TEST HOLE 140-A
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE 907

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 9"		
2						CLAY -Organic Silty Pebbles		
4					CI	Medium plastic		Vs
6							F	
8						— 8'		
10						CLAY -Sandy Silty Pebbles		
12					CI	Medium plastic		
14						— 14'		Nbn
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

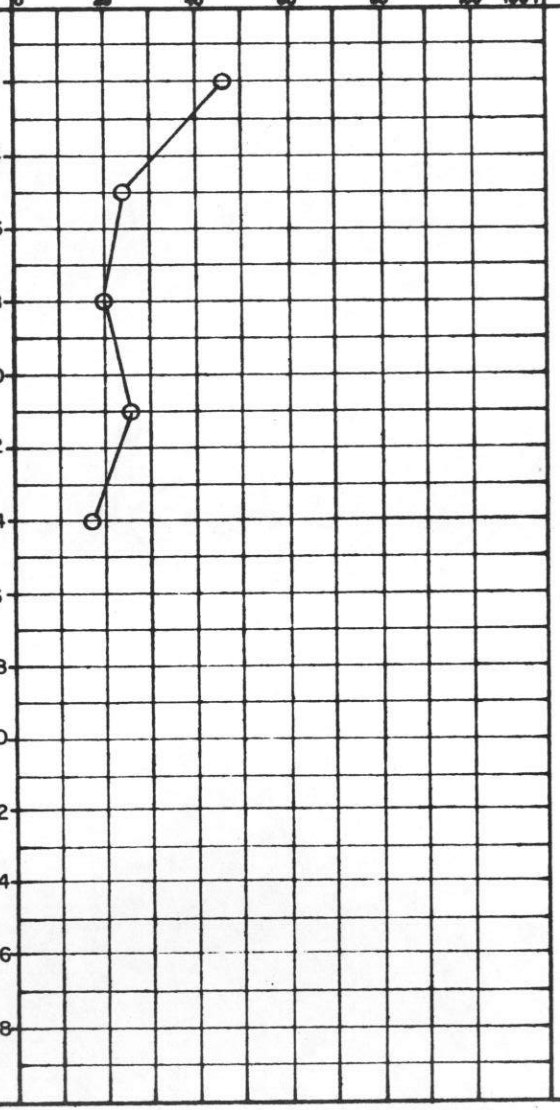
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1527+00	OFFSET. ℄
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX 5"	ELEV.

TEST HOLE 141

MILE 907

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .9"		
2						CLAY - SANDY - SILTY - PEBBLES		HIGH ICE
4						MED PLASTIC	F	- Vs -
6					Cl			
8								MODERATE ICE
10								
12								Vc - Vr
14						14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				FREE WATER	
				SAT	
				MOIST	
				WET	
				MOIST	

DS-14-5-74 b

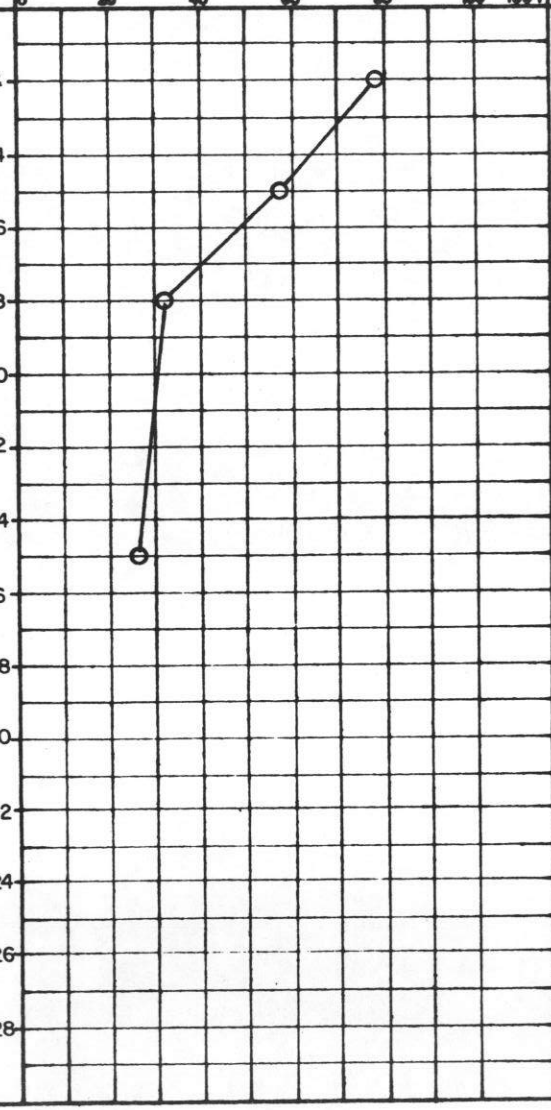
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-44	CHAINAGE. 1538+00	OFFSET. Ł	TEST HOLE 142
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 906

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 8"		HIGH						
2					OL	ORGANIC CLAYEY SILT		ICE					SAT	
					DH	4'								
4						CLAY - SANDY - SILTY - PEBBLES							FREE WATER	
6							F							
8						MED PLASTIC		MODERATE					WET	
					Cl	COBBLES @ 9'		ICE						
10													MOIST	
12								Vc-Vr						
14						15'							MOIST	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/74	AIRPHOTO NO. A 22968-44	CHAINAGE. 1549+00	OFFSET. D	TEST HOLE 143
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 7"	ELEV.	MILE 906

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 160 180 200+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.3'		MODERATE						
2						CLAY - SANDY - SILTY - PEBBLES		ICE					WET	
4						MED PLASTIC							SAT	
6					Cl		F						MOIST	
8														
10								Vc-Vr					MOIST	
12														
14						15'							MOIST	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

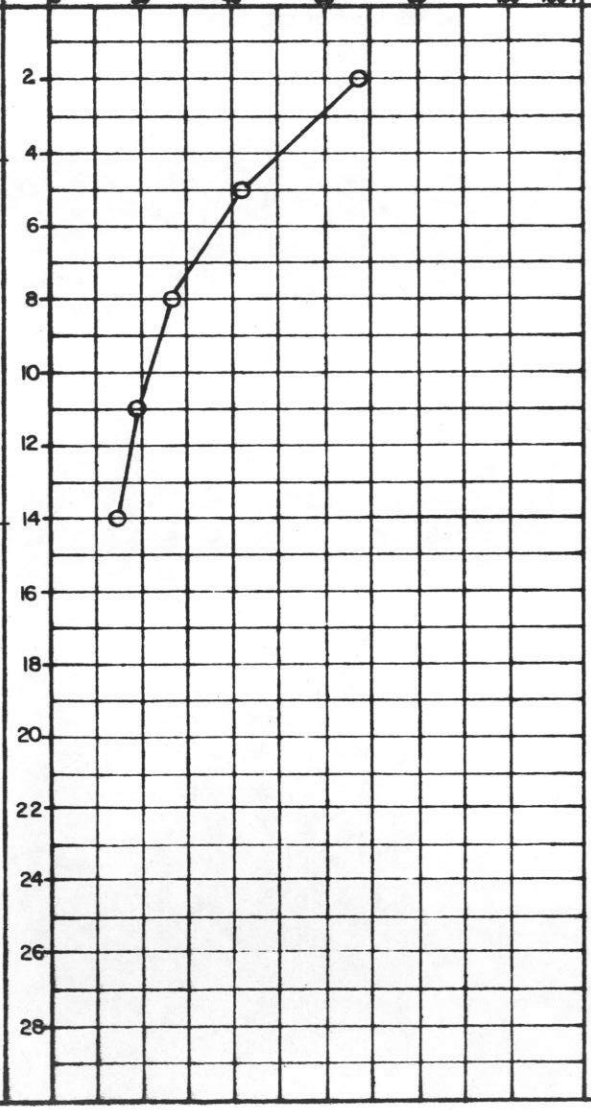
FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1562+00	OFFSET. Ł
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 7"	ELEV.

TEST HOLE 144

MILE 906

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT .5'							
2						CLAY - SANDY SILTY PEBBLES		HIGH ICE					FREE WATER
4						SHALE FRAGMENTS							WET
6					Cl		F	- Vs -					
8								MODERATE ICE					WET
10													MOIST
12								Vc - Vr					
14						14'							MOIST
						BOTTOM OF HOLE 14'							
16													
18													
20													
22													
24													
26													
28													



DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

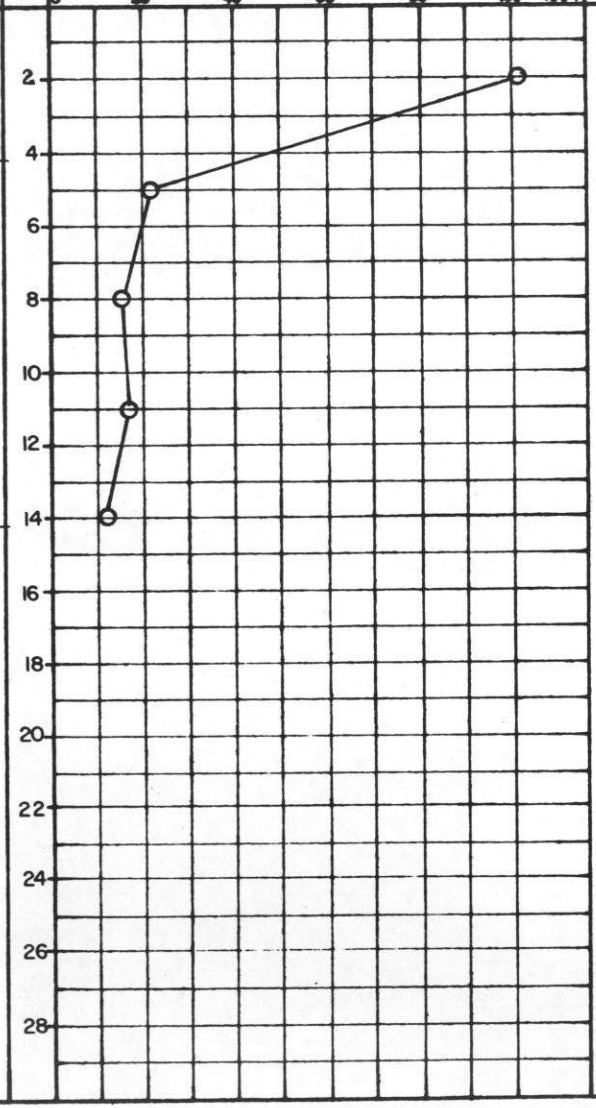
FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1574+00	OFFSET. D
TECH. SAWCHUK	RIG. Mayhew #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 7:	ELEV.

TEST HOLE 145

MILE 906

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 8"		HIGH ICE
2					Sc	SANDY - CLAYEY SILTY		Vs
4						4'		
6					CL	CLAY - SANDY - SILTY - PEBBLES LOW PLASTIC COBBLES @ 5'	F	LOW ICE
8								
10								
12					Cl	MED PLASTIC		Vx
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
				FREE
				WET
				MOIST
				MOIST
				MOIST

DS-14-5-74 b

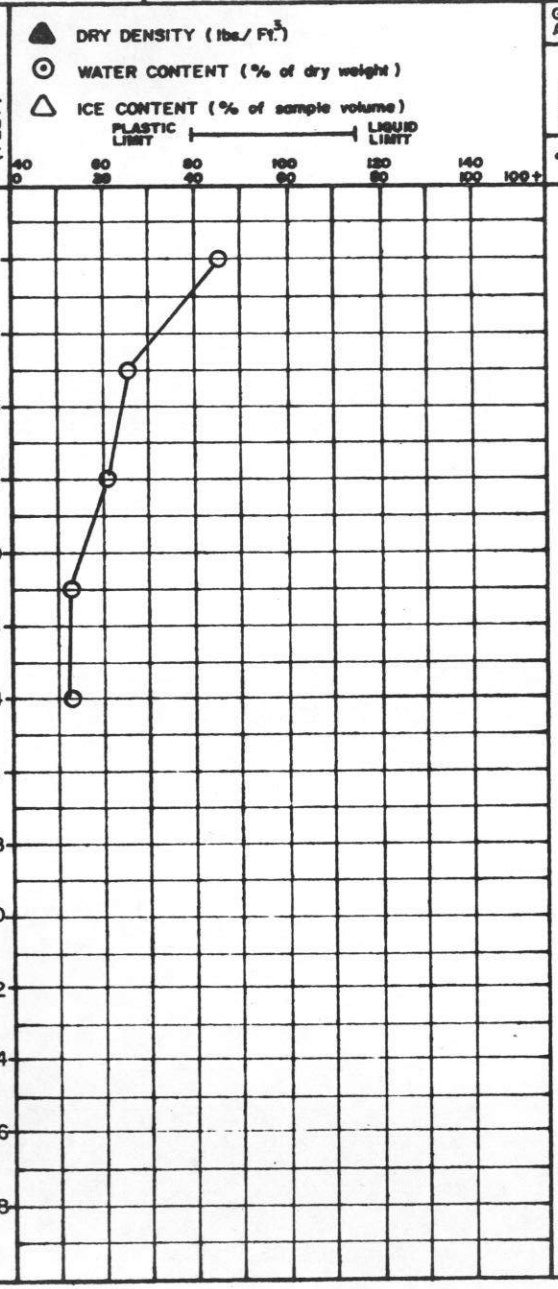
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. Constant	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1583 + 00	OFFSET. ℄	TEST HOLE 146
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. Spruce Max 5"	ELEV.	MILE 906

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 9"		HIGH ICE
2						CLAY - SANDY SILTY PEBBLES SHALE FRAGMENTS		Vs
4								MODERATE
6					Cl	MED PLASTIC	F	
8								ICE
10								Vc - Vr
12								LOW ICE
14						14'		Vx
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					FREE WATER
4					WET
8					WET
12					MOIST
14					MOIST

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22967-140	CHAINAGE. 1590 + 00	OFFSET. D
TECH. SAWCHUK	RIG. MAYHEW #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX 8"	ELEV.

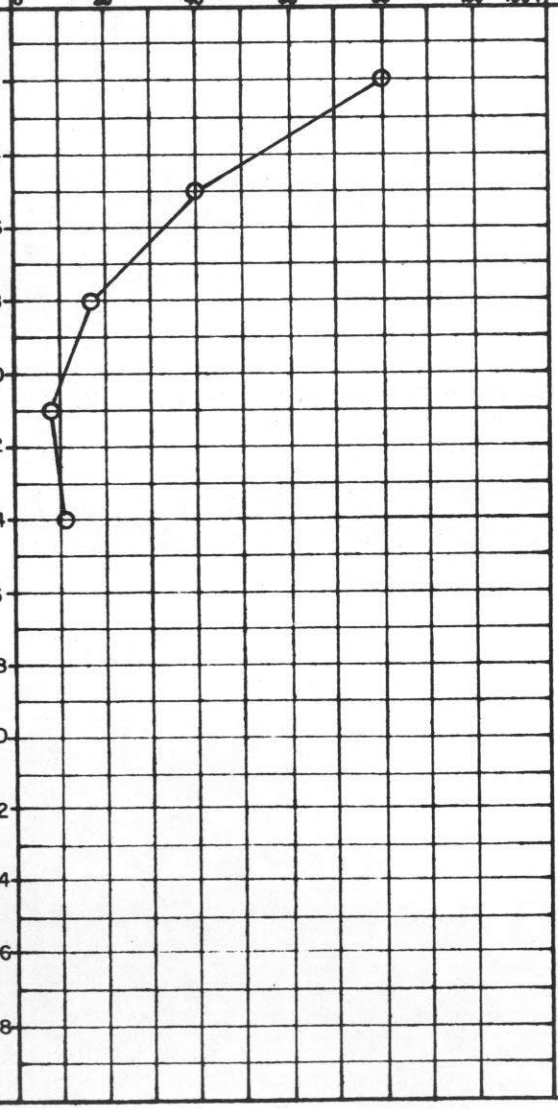
TEST HOLE 147

MILE 905

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 5"		HIGH
2						CLAY - SILTY SANDY PEBBLES MED PLASTIC		ICE
4					Cl		F	
6								Vs
8								LOW
10								ICE
12						SILTSTONE FRAGS		Vx
14						14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					FREE WATER
4					SAT
6					
8					WET
10					MOIST
12					
14					MOIST

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

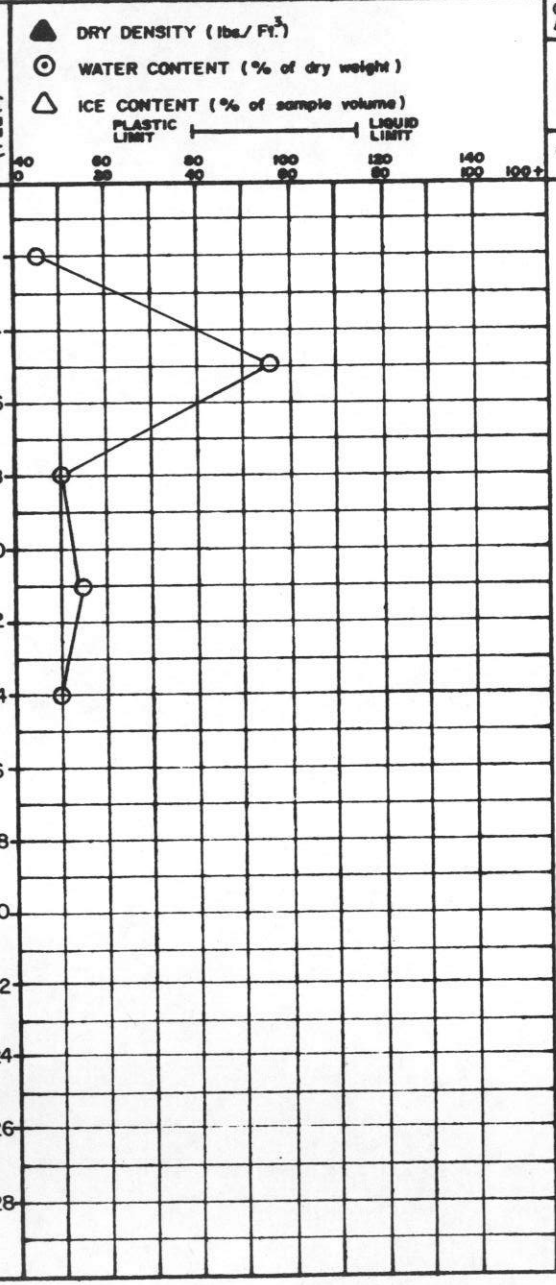
FIELD ENG. B. CONSTANT | DATE DRILLED. 30/4/73 | AIRPHOTO NO. A 22967-140 | CHAINAGE. 1597+50 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 8" | ELEV.

TEST HOLE 148

MILE 905

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 4"		Moderate
2					SP GP	SAND-GRAVEL -Cobbles N. P.		Ice
4						— 4'		
6					CH	CLAY -Sandy Silty Pebbles High plastic	F	
8						— 8'		Vc - Vr
10					GC	GRAVEL -Sandy Clayey		
12						— 13'		
14					CL	CLAY-Sandy silty pebble 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Wet	
				Wet	
				Wet	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 30/11/73 | AIRPHOTO NO. A 22967-140 | CHAINAGE. 1603+50 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 8" | ELEV.

TEST HOLE 149

MILE 905

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT .4'		Moderate Ice Vc - Vr	Moist
4					GC	GRAVEL -Sandy Clayey 7'	F		Wet
8					CI	CLAY-Silty, sandy Pebbles Med plastic		High Ice Vs	Sat.
12						ICE		ICE	Water
16					CI	CLAY -Sandy Silty Pebbles Med plastic	F	High Ice Vs	Sat.
20								Moderate Ice Vc - Vr	Moist
24					CI	CLAY -Sandy Silty Pebbles Med plastic		Moderate Ice Vc - Vr	Moist
28									Moist
32						Shale & siltstone fragments			Moist
36						38'			Damp
40						SHALE -Silty Soft		Frozen Nbn	Damp
44						46'			Damp
48						BOTTOM OF HOLE - 46'			
52									
56									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 a

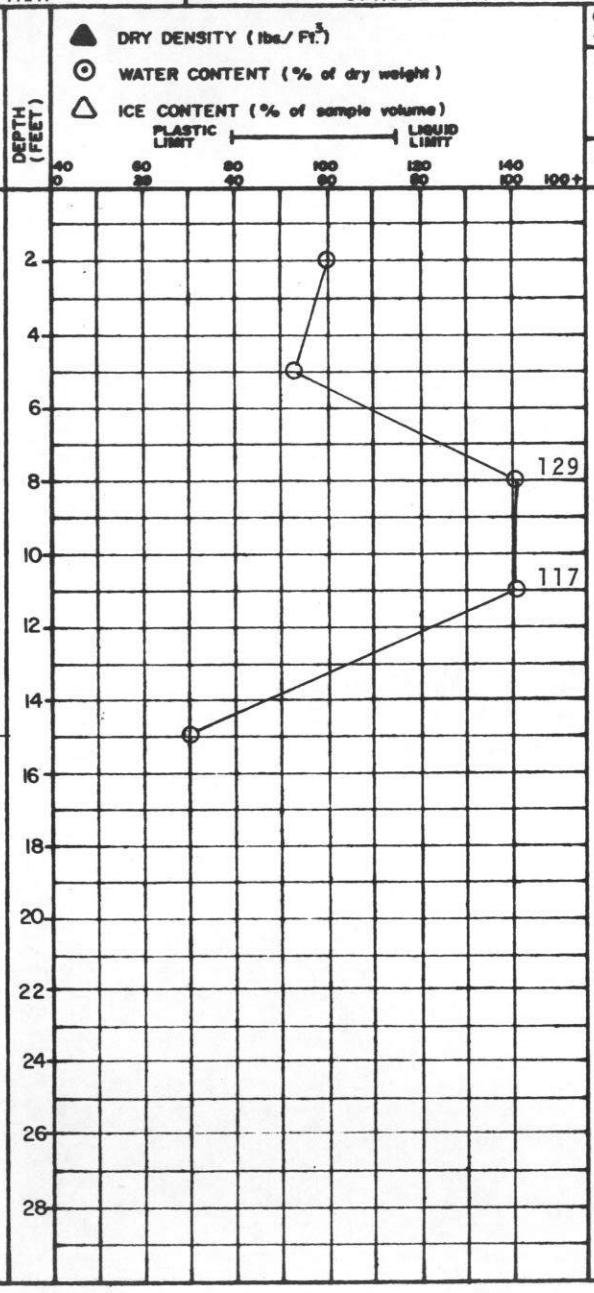
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1618+00	OFFSET. ℄	TEST HOLE 150
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 905

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — .9'		
2						CLAY -Sandy Silty Low-med plastic		High Ice
4								
6					CL	Organic material Throughout	F	Vs
8					CI			
10								
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
4					Free Water	
8					Free Water	
10					Free Water	
14					Sat.	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-140 | CHAINAGE. 1628+00 | OFFSET. ℄

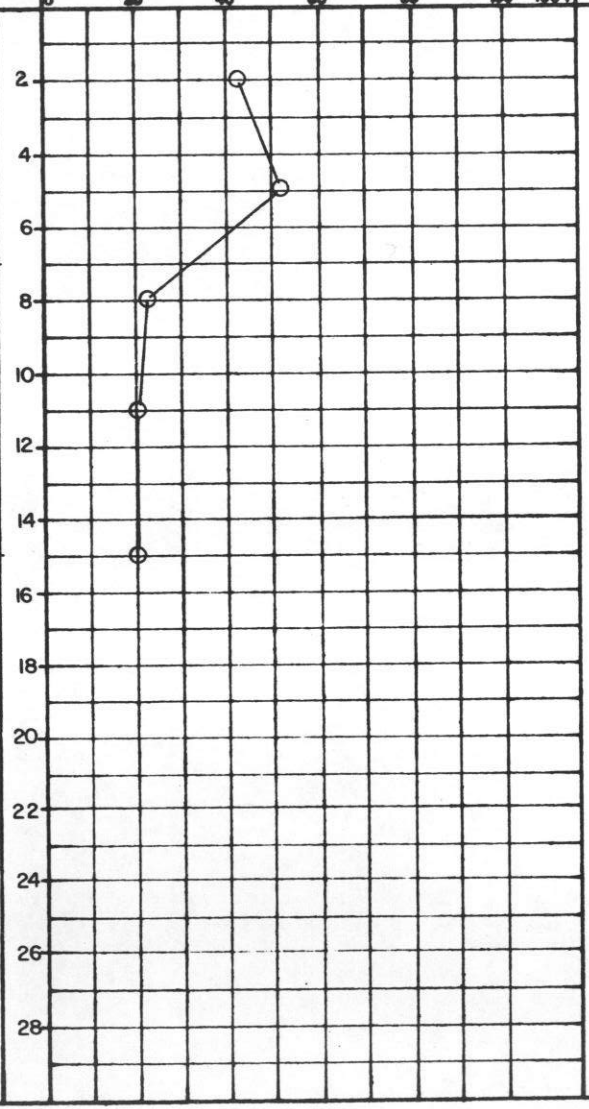
TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 3" | ELEV.

TEST HOLE 151

MILE 905

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .7'		High Ice
2					CL	CLAY -Sandy Silty Low-Med plastic High plastic Organics 5'-7'	F	Vs
8					CI			Moderate Ice
12					CL	Pebbles		Vc - Vr
15						BOTTOM OF HOLE - 15'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Wet	
				Moist	
				Wet	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1640+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.

TEST HOLE 152

MILE 905

REMARKS

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT —.9'		Moderate Ice					
2						CLAY -Sandy Silty Pebbles Low-med plastic							Moist
4													Moist
6					CL		F						
8					CI			Vc - Vr					Wet
10													Moist
12								Low Ice Vx					
14						—15'							Moist
16						BOTTOM OF HOLE - 15'							
18													
20													
22													
24													
26													
28													

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1650+00	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.

TEST HOLE 153

MILE 904

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .9'		
2						CLAY -Sandy Pebbles Med plastic	F	High Ice Vs
6					CI			Low Ice Vx
14						15'		
16						BOTTOM OF HOLE - 15'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Sat.	
				Damp	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

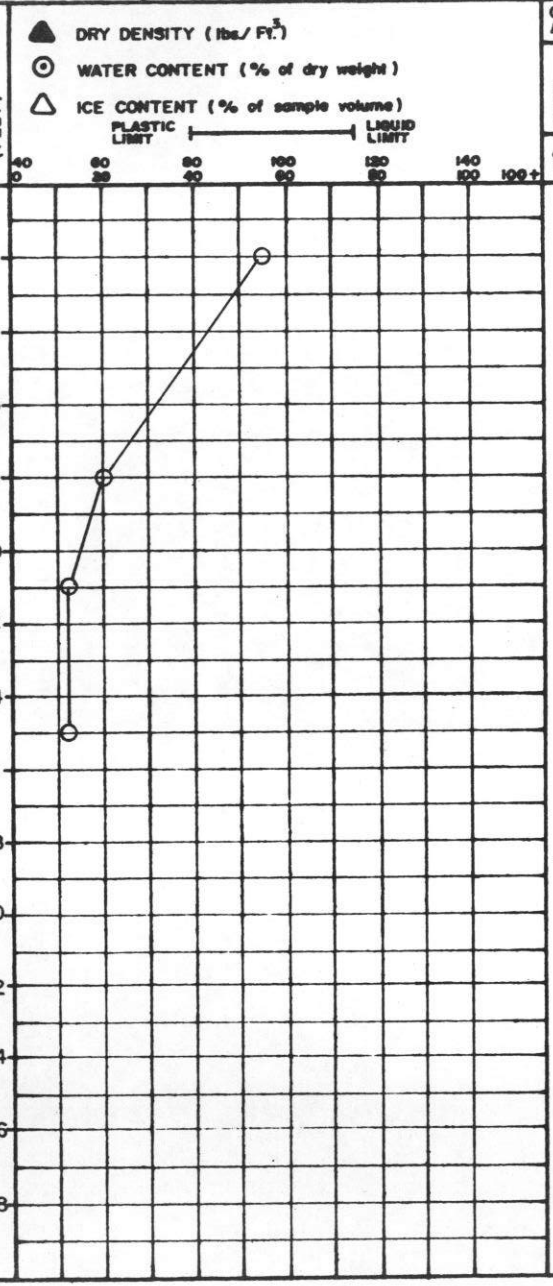
FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-138 | CHAINAGE. 1662+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 5" | ELEV.

TEST HOLE 154

MILE 904

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .9		High
2						CLAY		Ice
4						-Sandy		
6						Silty	F	
8					CI	Shale fragments		Vs
10						Low to med plastic		Low
12								Ice
14								Vx
15						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-138 | CHAINAGE. 1674+00 | OFFSET. ℄

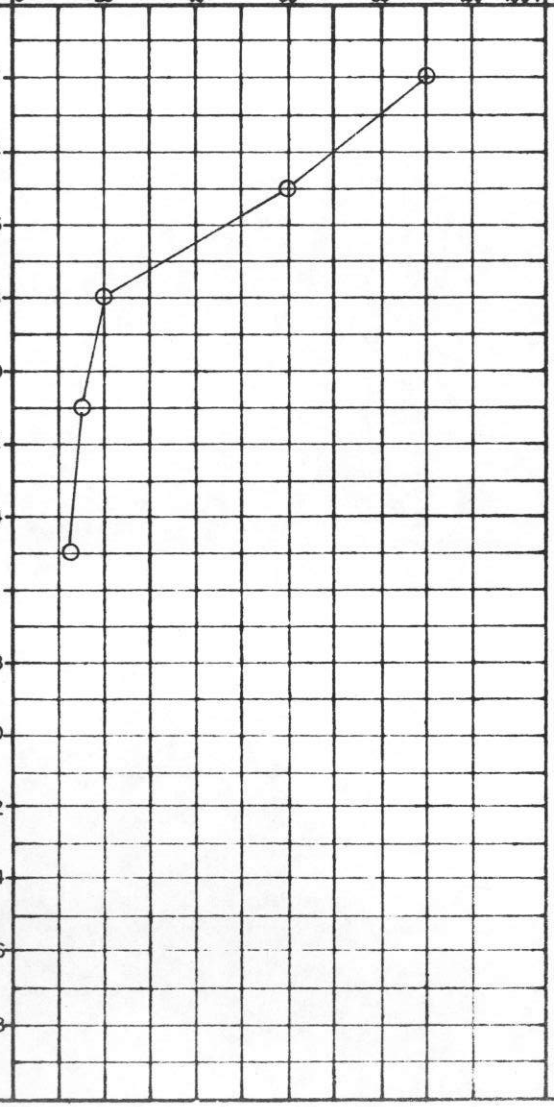
TECH. | RIG. MAYHEW - #2 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 155

MILE 904

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		High	Free Water
0.6'									
2						CLAY -Sandy Silty Low to med plastic		Vs	
4					CL				Free Water
6					CI			Ice	
8									Sat.
8'								Low	
10						CLAY -Sandy Silty Shale fragments Med plastic		Ice	Moist
12					CI				
14								Vx	
15'									Moist
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-138 | CHAINAGE. 1685+00 | OFFSET. ℄

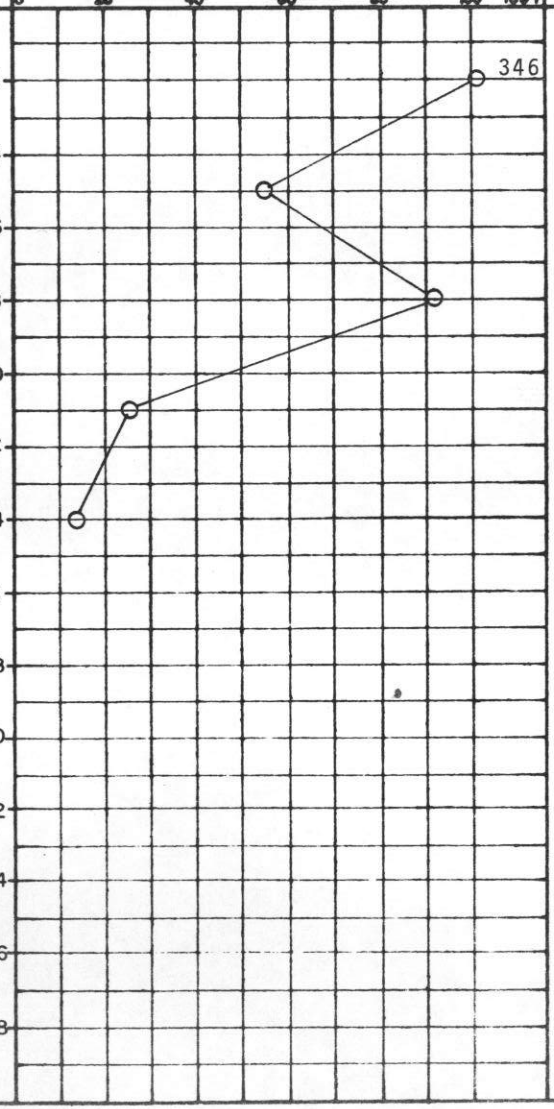
TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 156

MILE 904

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .4'		
2					HO	WATER & ORGANIC (ICE) MATERIAL		High Ice
4						— 4'		
6					CL	CLAY -Sandy-org. mat. Silty Pebbles Low-med Plastic	F	Vs
8								
10					CI			
12								Vx Low Ice
14						Gravelly — 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Free Water
6					Sat.
8					Free Water
12					Sat.
14					Moist

REMARKS

DS-14-5-74 b

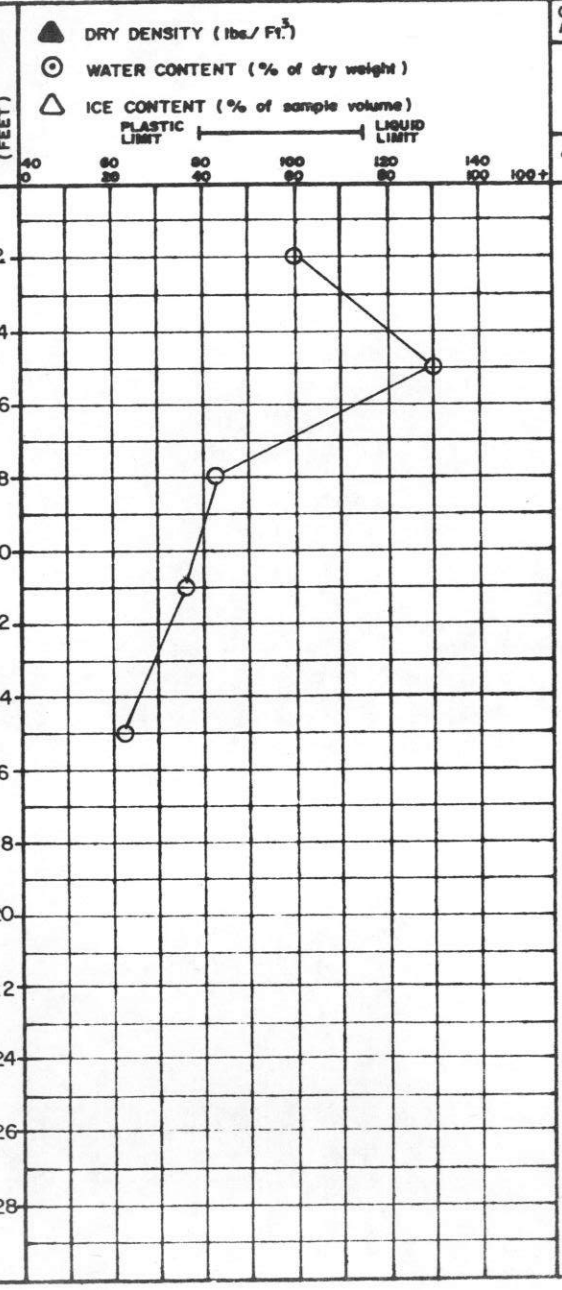
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1694+00	OFFSET. ℄	TEST HOLE	157
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPURCE MAX. 6"	ELEV.	MILE	903

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .9'		High
2						CLAY		Ice
4						-Sandy		
6						Silty	F	Vs
8					CI	Med plastic		
10								
12						Pebbles		Moderate Ice
14						15'		Vc - Vr
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Sat.	
				Wet	
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

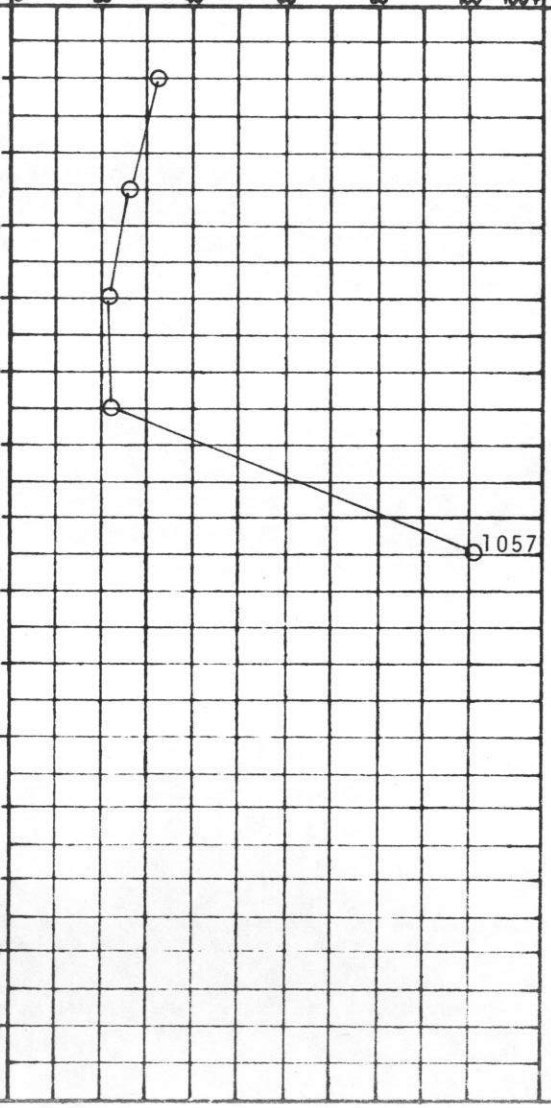
FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-138 | CHAINAGE. 1702+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPURCE MAX. 5" | ELEV.

TEST HOLE 158

MILE 903

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		Moderate Ice Vc - Vr
2						CLAY -Sandy Silty Pebbles Med plastic	F	
4								
6								
8					CI			High Ice
10						— 11'		
12						SAND -Clayey Silty		Vs
14					SC			
						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Wet
				Moist
				Sat.
				Free Water
				Free Water

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-138 | CHAINAGE. 1702+00 | OFFSET. ℄

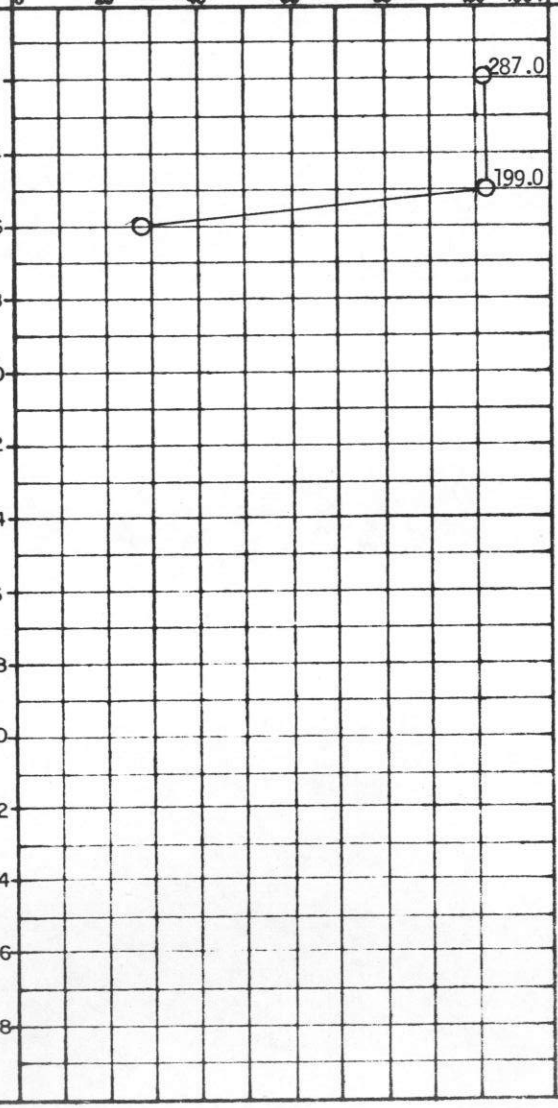
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE 6" MAX. | ELEV.

TEST HOLE 158-A

MILE 903

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		
2					CL	CLAY -Silty organic Low to med plastic Cobbles at 7'	F	Vs
8						— 9'		
10						ICE & SILTY CLAY		ICE & CL-CI
14						— 14'		
16						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water Free Water	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

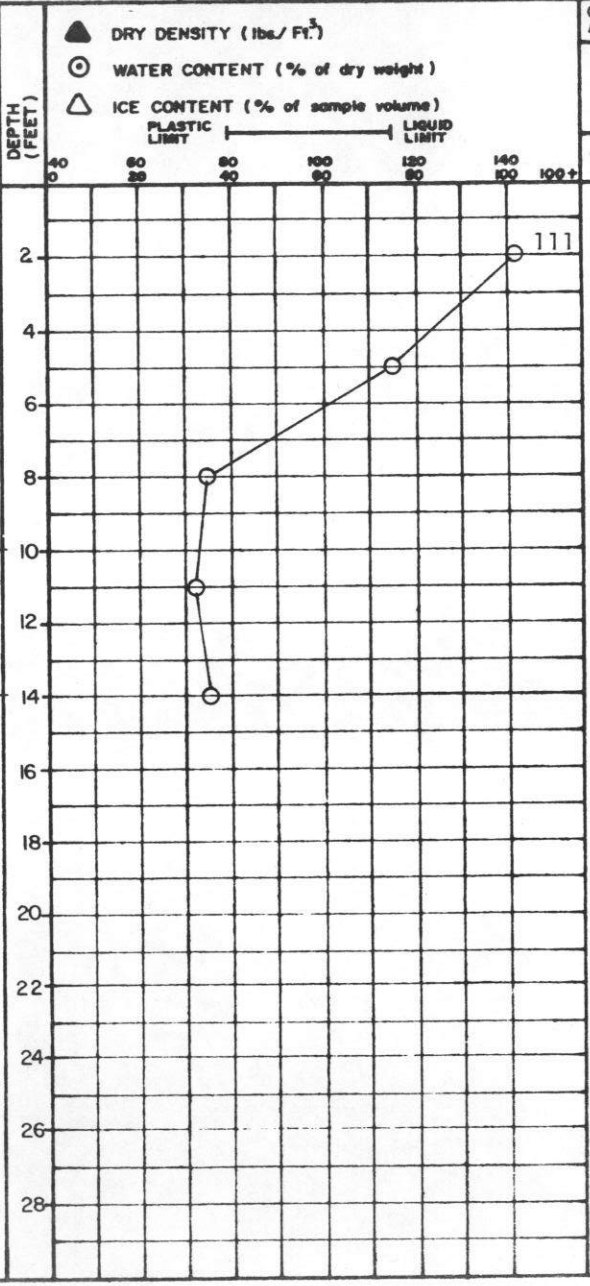
FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967+136 | CHAINAGE. 1710+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 159

MILE 903

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .9'		
2						CLAY		High Ice
4						-Organics to 4'		
						Silty		
						Sandy		
						Pebbles		
6					CL	Low-med plastic	F	Vs
8						Silty		
					CI			
10								Moderate Ice
12								
						Silty, sandy pebble 14'		Vc - Vr
14						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Sat.	
				Wet	
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-136 | CHAINAGE. 1719+00 | OFFSET. ℄

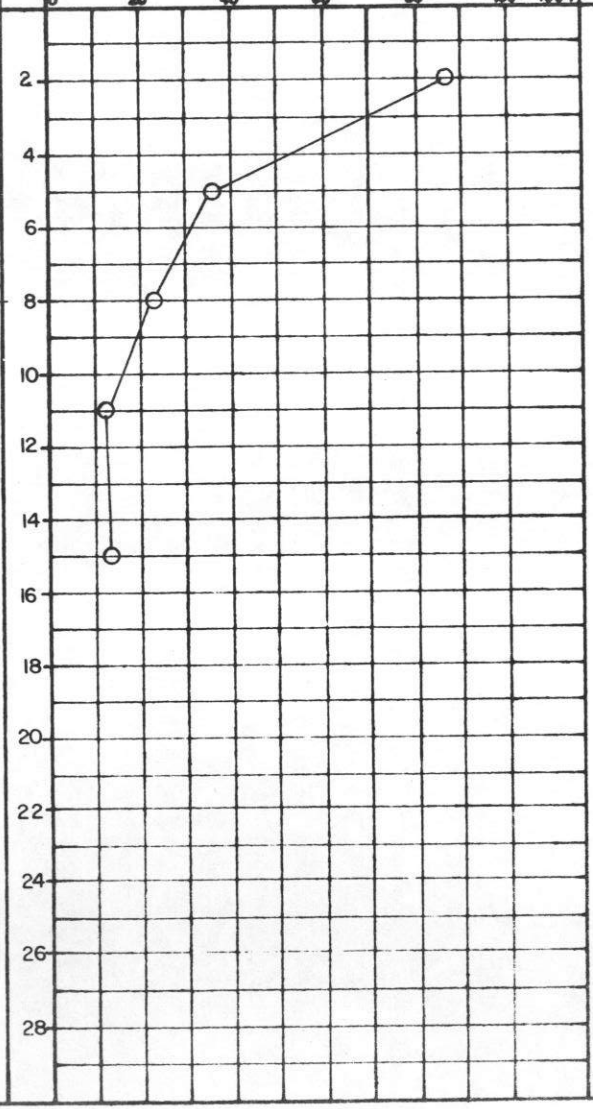
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR - FAIR | VEGETATION. SPRUCE MAX. 7" | ELEV.

TEST HOLE 160

MILE 903

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		High Ice	Free Water
0.5'									
2						CLAY -Sandy Silty Pebbles			
4					CL				Free Water
6						Low-med plastic	F		
8					CI			Vs	Wet
								Moderate Ice	
10									Moist
11'									
12						GRAVEL -Clayey Sandy		Vc - Vr	
14					GC				Moist
15'									
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-136	CHAINAGE. 1729+00	OFFSET. ℄	
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR - GOOD	VEGETATION. SPRUCE MAX. 6"	ELEV.	TEST HOLE 161
					MILE 903

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT —— 1'		Moderate Ice	
2						CLAY -Organics to 4" Sandy Silty Pebbles Shale fragments Med plastic			Moist
4								Vc - Vr	Moist
6							F		
8					CI			Low Ice	Moist
10									Moist
12								Vx	
14						Boulders @ 14'			Damp
						—— 15'			
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

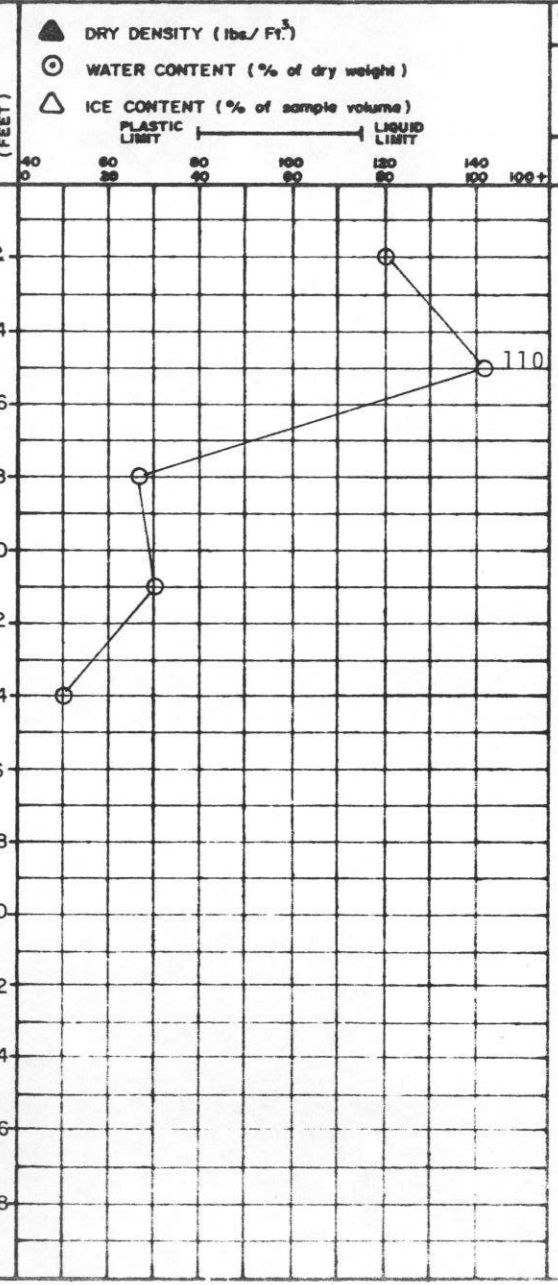
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-136	CHAINAGE. 1740+12	OFFSET. ℄	TEST HOLE	162
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE	903

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .8'		High Ice
2						CLAY -Org. to 4' Sandy Silty Pebbles		
4					CL	Low-med plastic Cobbles	F	Vs
6					CI	Boulders 6'-7'		
8								Moderate Ice
10								
12								Vc - Vr
14					GC	GRAVEL-CLAY MIX 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
4					Free Water	
8					Wet	
12					Wet	
14					Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-136 | CHAINAGE. 1749+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 7" | ELEV.

TEST HOLE 163

MILE 902

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 4"			
2						CLAY		Moderate	Wet
4						-Sandy Silty Pebbles Shale fragments Med plastic		Ice	Sat.
6					CI				
8						Cobbles & boulders	F		Wet
10								Vc - Vr	
12						Gravelly 11'-13'			Moist
14						— 14'			Moist
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-135 | CHAINAGE. 1758+00 | OFFSET. ℄

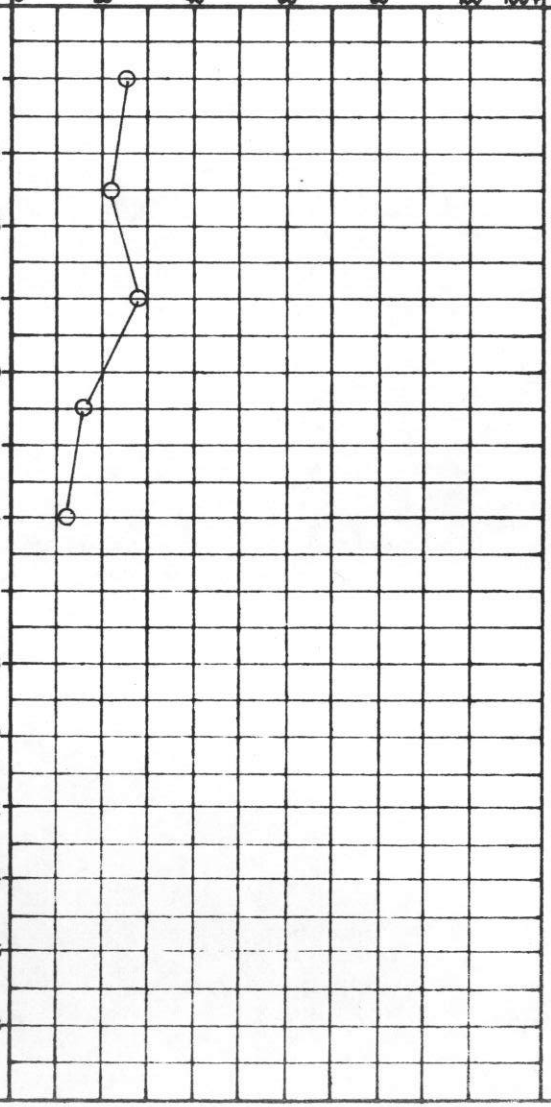
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 164

MILE 902

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .7'		High
2						CLAY		
						-Sandy		
						Silty		Ice
4						Pebbles		
					CI			
						Med plastic		
6							F	Vs
8						Low plastic		
10					CL			Low
								Ice
12								
14						14'		Vx
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Sat.
4					Sat.
6					
8					Free Water
10					Moist
12					
14					Moist

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

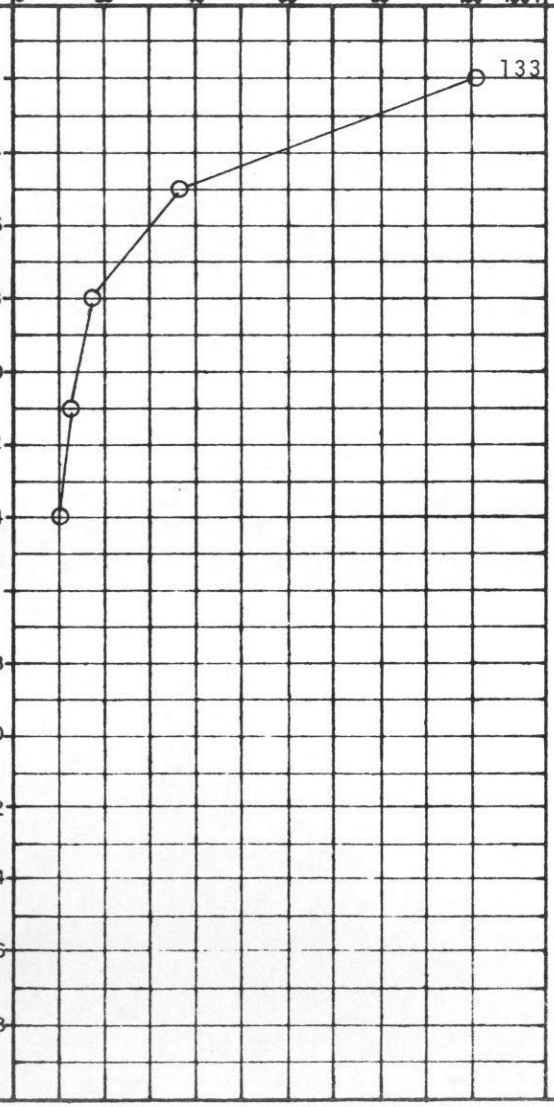
FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-135 | CHAINAGE. 1768+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 7" | ELEV.

TEST HOLE 165

MILE 902

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — .9'		High Ice					Free Water	
2						CLAY -Sandy-org. 4' Silty Low-med plastic Pebbles								
4													Free Water	
6					CL		F	Vs						
8					CI			Low Ice					Wet	
10													Moist	
12								Vx						
14						GRAVEL-SAND-CLAY — 14'								Moist	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-135 | CHAINAGE. 1776+50 | OFFSET. ℄

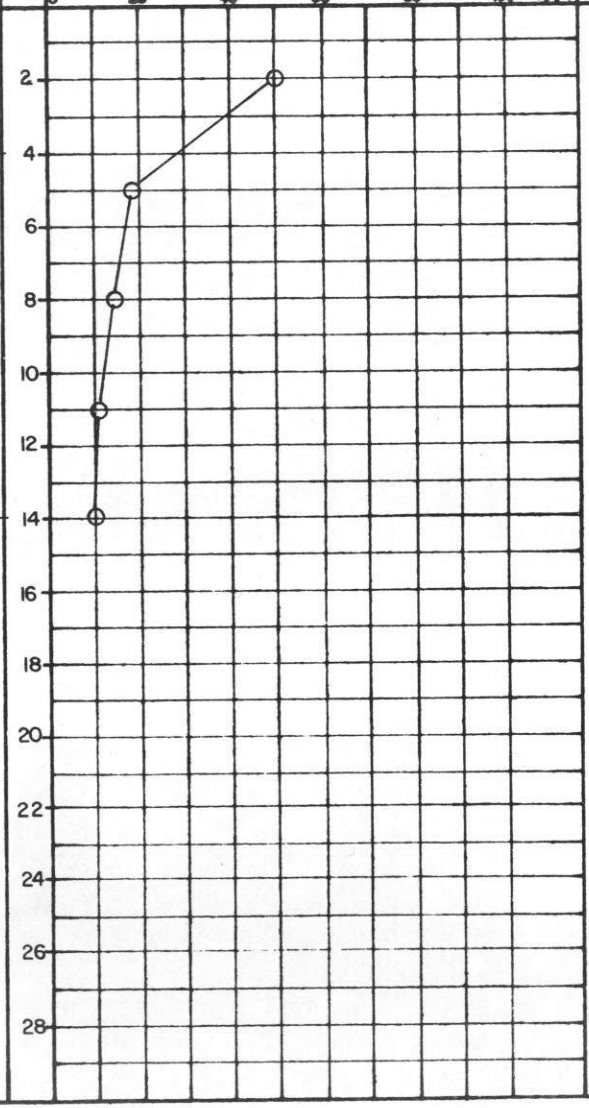
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 5" | ELEV.

TEST HOLE 166

MILE 902

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 4"		High Ice
2						CLAY		Vs
4						-Sandy Silty Pebbles Shale fragments Low to medium plastic	F	
6								
8					CI			Low Ice
10								
12								Vx
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT	REMARKS
Free Water	
Moist	
Moist	
Moist	
Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-38 | CHAINAGE. 1786+00 | OFFSET. ℄

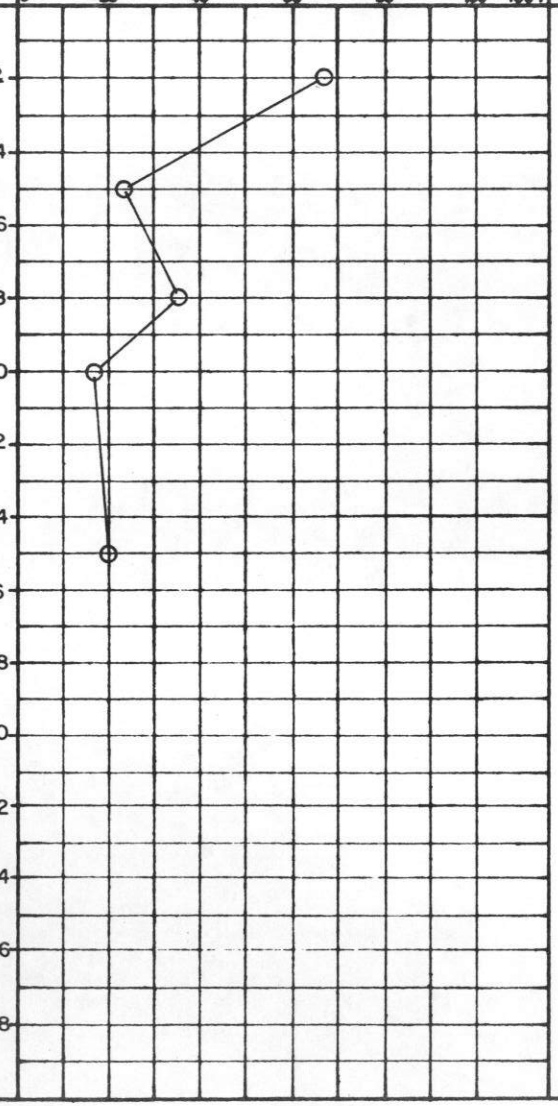
TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 5" | ELEV.

TEST HOLE 167

MILE 902

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					OH	ORGANIC .9'		
2						CLAY -Sandy Silty Shale fragments Med plastic		High Ice
4								
6								Vs
8					CI		F	
10								Moderate Ice
12								
14								Vc - Vr
						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-38	CHAINAGE. 1796+00	OFFSET. ℄	TEST HOLE 168
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE - BIRCH 4"-6"	ELEV.	MILE 902

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.4'								
2						CLAY -Silty Sandy Pebbles Med plastic								
4														
6					CI		F	Low Ice					Moist	
8													Damp	
10								Vc - Vr					Damp	
12														
14						— 15' —							Damp	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 2/12/73 | AIRPHOTO NO. A 22967-38 | CHAINAGE. 1806+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE-BIRCH 3"-6" | ELEV.

TEST HOLE 169

MILE 901

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		High Ice Vs
2						CLAY -Silty-org. to 4' Sandy Pebbles Med plastic		
4								
6							F	Vx
8					CI			Low Ice
10								
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2			○						
4									
6									
8			○						
10									
12			○						
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
					Wet
					Moist
					Damp
					Damp
					Damp

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/74	AIRPHOTO NO. A 22967-38	CHAINAGE. 1815+00	OFFSET. ℄	TEST HOLE 170
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE-BIRCH MAX. 3"	ELEV.	MILE 901

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.2'							Damp	
2						CLAY -Silty-org. to 4' Sandy Pebbles Med plastic		Low Ice					Moist	
4														
6													Damp	
8					CI		F							
10								Vc - Vr					Damp	
12														
14						— 15'							Damp	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140
0 20 40 60 80 100 100+

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

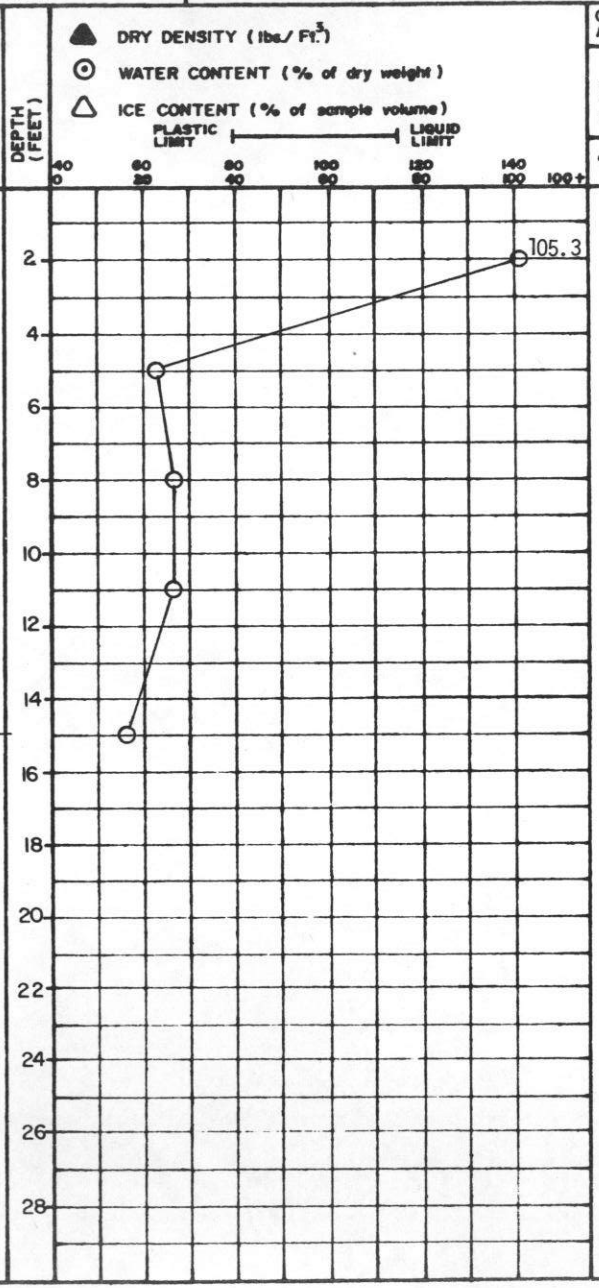
FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-38 | CHAINAGE. 1824+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 3" | ELEV.

TEST HOLE 171

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .8'		
2					OL	SILT - Organic		High Ice
4					ML	4'		
6						CLAY -Sandy Silty Shale fragments	F	Vs
8					CL	Low plastic		
10					CI			
12								
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT	REMARKS
Free Water	
Free Water	
Free Water	
Sat.	
Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

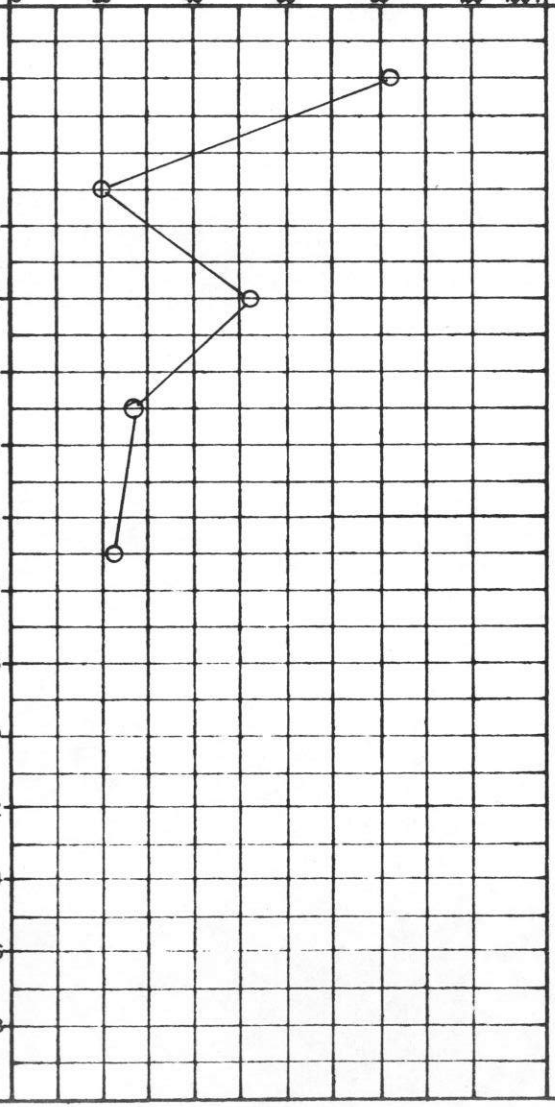
SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-38	CHAINAGE. 1825+75	OFFSET. ℄	TEST HOLE 172
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE 901

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — .9'		High						
2					ML / OL	SILT -Clayey Organic		And					Moist	
4						— 4'								
6					CI	CLAY -Silty Sandy Pebbles 5'-7' Med plastic	F	Vs Moderate Ice					Moist	
8													Free Water	
10													Moist	
12						— 13'		Vc - Vr						
14					ML	SILT -Sandy Clayey — 15'							Wet	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-36	CHAINAGE. 1829 + 50	OFFSET. ℄
TECH. McINTOSH	RIG. MAYHEW -#2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.

TEST HOLE 173

MILE 901

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		High Ice Vs					Moist
2					ML / OL	SILT -Organic Clayey							
4													Wet
6						CLAY -Silty Sandy Low plastic	F						
8								Moderate Ice					Damp
10					CL								Moist
12								Vc - Vr					
14													Moist
16						BOTTOM OF HOLE - 15'							
18													
20													
22													
24													
26													
28													

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-36 | CHAINAGE. 1841+50 | OFFSET. ℄

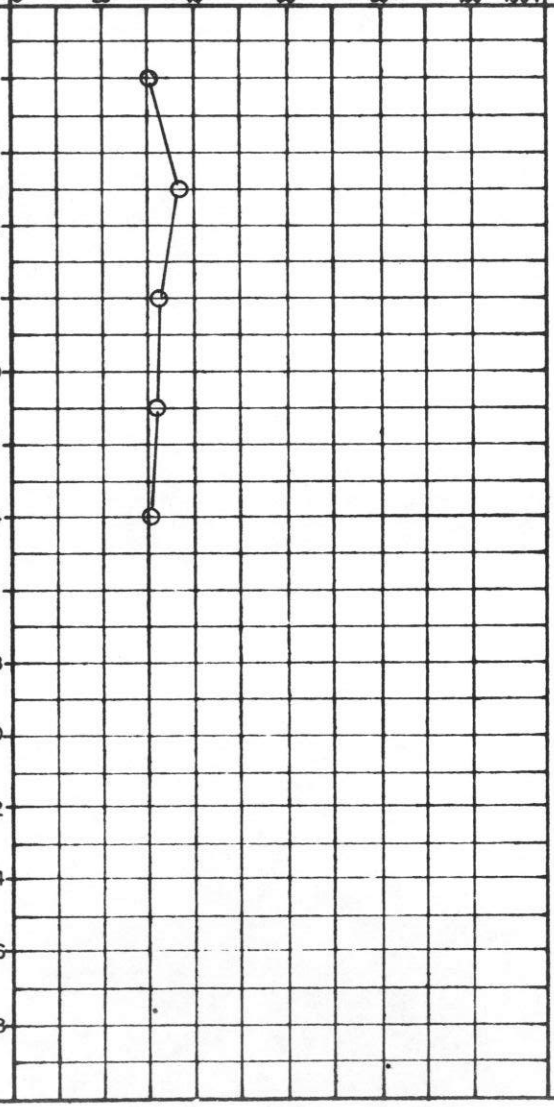
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 174

MILE 901

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						.5'		High Ice
2					ML	SILT -Clayey Organic		
4						4'		
6						CLAY -Silty Med plastic	F	Vs
8					CI			Moderate Ice
10						11'		
12					CI	CLAY -Silty Sandy		Vc - Vr
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Moist	
4						
6					Sat.	
8					Damp	
10						
12					Damp	
14					Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-36 | CHAINAGE. 1841+50 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE - BIRCH | ELEV.

TEST HOLE 174-A

MILE 901

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — ½'		
2					ML	SILT -Sandy Clayey Low plastic		Nbn
4								Vs
6							F	
8								Nbn
10								Vr
12								
14						14'		
						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL	RELATIVE THAWED MOISTURE CONTENT
	%	%	%	%	

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

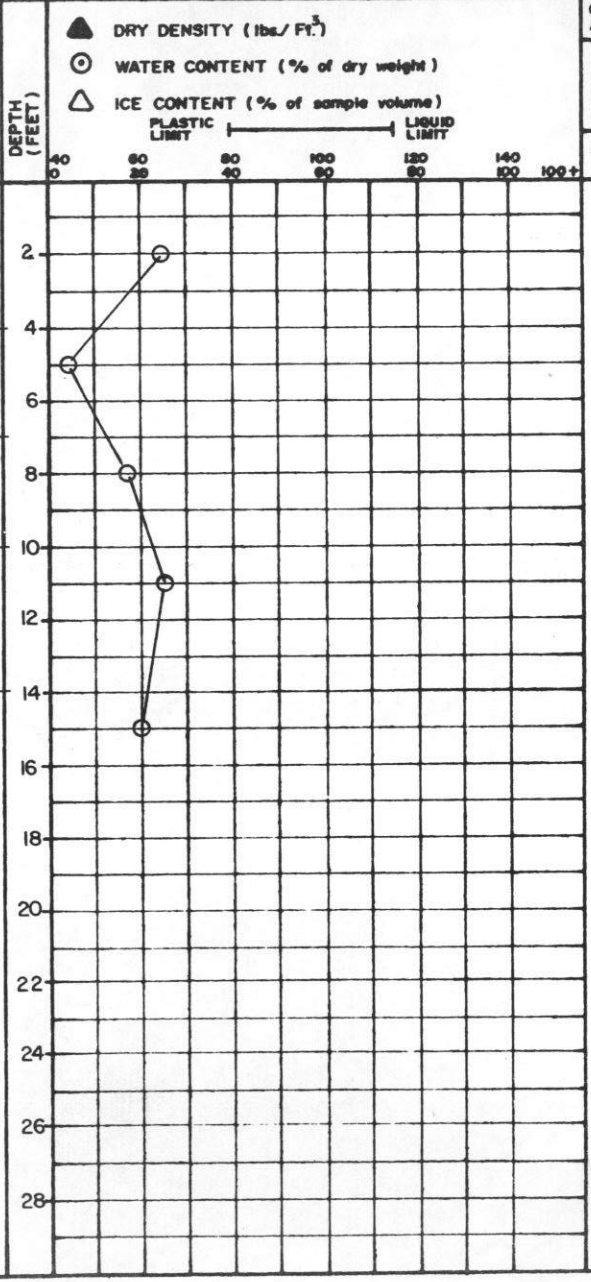
FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-36 | CHAINAGE. 1850+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE-BIRCH MAX 4" | ELEV.

TEST HOLE 175

MILE 901

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT .5'		High Ice	
2					CL	CLAY -Silty Low plastic		Vs	Sat.
4						4'			
					ML	SAND -Silty		Nbn	Humid
6									
8					SM	SAND -Silty SILT -Sandy		Low Ice Vx	Damp
10									Free Water
12					ML			High Ice Vs	
14								Vx	Damp
						15'			
16						BOTTOM OF HOLE - 15'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS			
CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-36 | CHAINAGE. 1860+00 | OFFSET. ℄

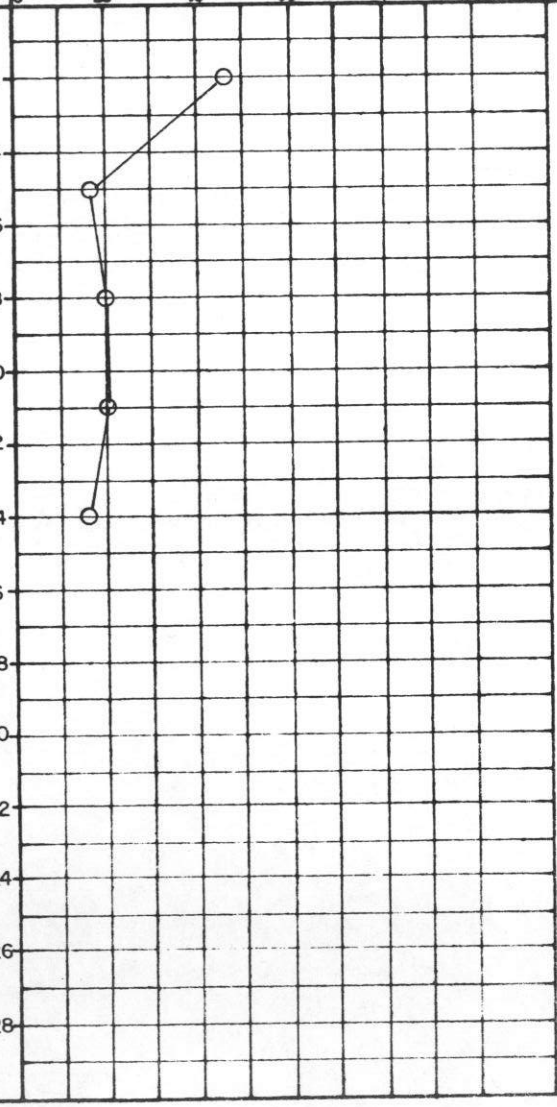
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE-BIRCH 3" | ELEV.

TEST HOLE 176

MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 9"		High Ice Vs
2					CL	CLAY -Silty Sandy Low plastic — 4'		
4					ML / SM	SAND - Silty SILT - Sandy None Plastic		Moderate To Low Ice Vc - Vr Vx
6								
8								
10								
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

RELATIVE THAWED MOISTURE CONTENT
Free Water
Damp
Sat.
Damp
Damp

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

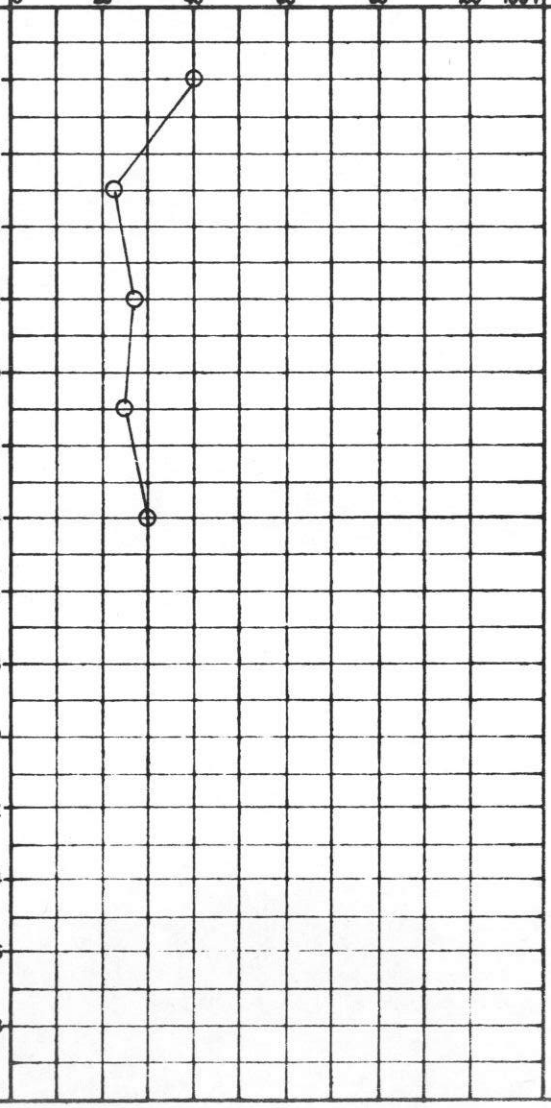
SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-36	CHAINAGE. 1869+00	OFFSET. ℄	TEST HOLE 177
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT .5'		High						
2						ORGANICS to 4'							Damp	
4					ML / CL	SILT - Clayey CLAY - Silty Low plastic	F	Vs And Moderate Ice Vc - Vr					Wet	
6														
8													Free Water	
10													Damp	
12														
14						15'							Free Water	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



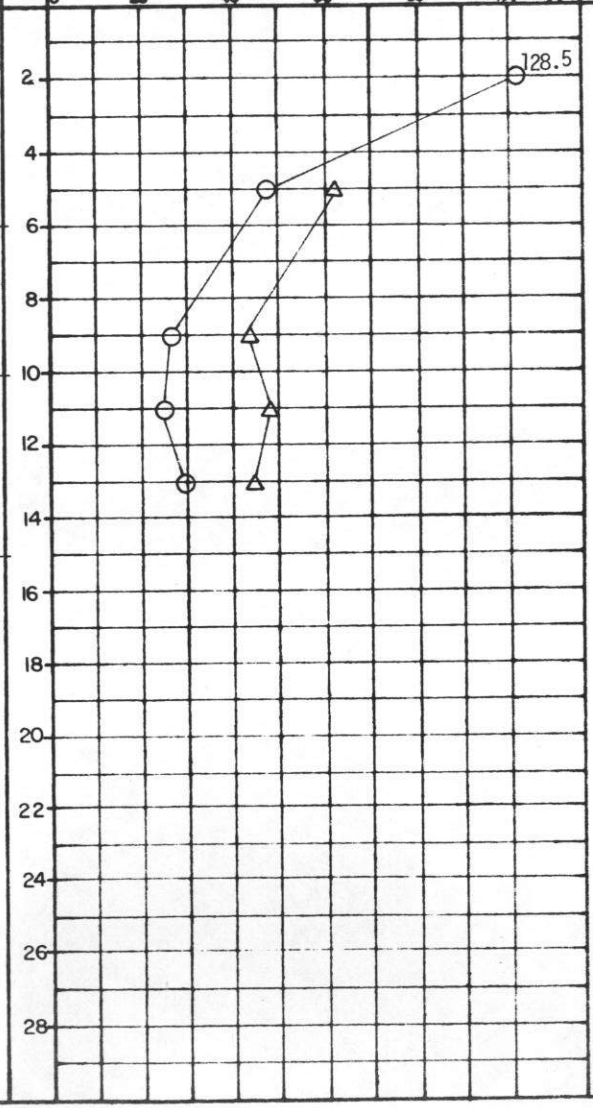
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-36	CHAINAGE. 1869+00	OFFSET. ℄	TEST HOLE 177-A
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — ½'	F	Ice Lenses ¼"
2					OH ML	SILT -Highly organic Clayey, low plastic — 3'		
4					CI	CLAY -Silty Medium plastic		Vs
6								
8								Vx
10						— 10'		Vs
12					ML	SILT -Clayey Low plastic		
14								Nbn & Vs
						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22967-36 | CHAINAGE. 1878+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 3" | ELEV.

TEST HOLE 178

MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 9"		
2						CLAY		Vs
4						-Silty		
						Sandy		High
6					CL	Low-med plastic	F	
								Ice
8					CI			
10						Pebbles		Moderate
12								Ice
14						— 14'		Vc - Vr
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
					Sat.
					Wet
					Sat.
					Moist
					Damp

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

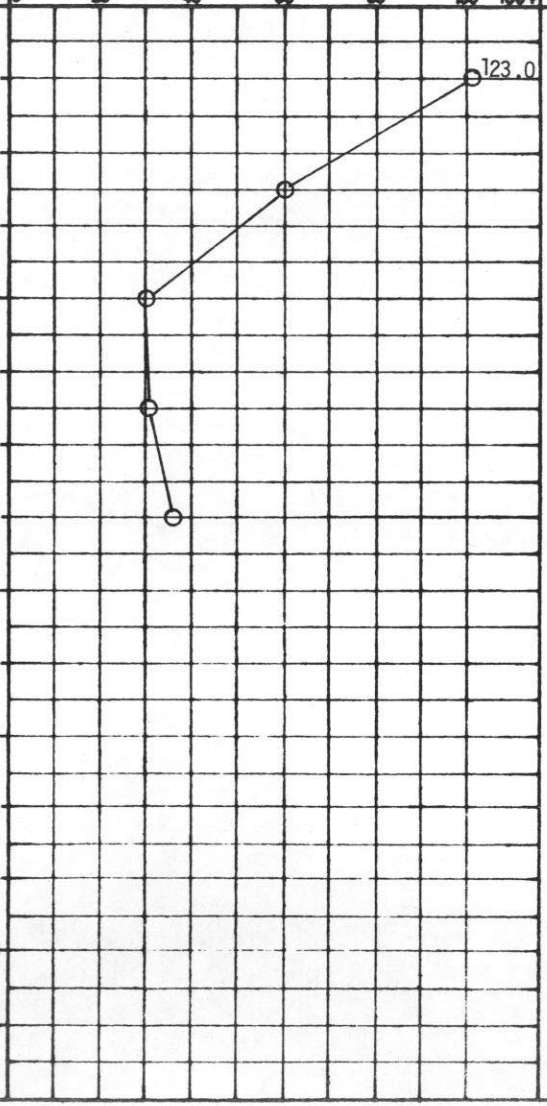
FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-36	CHAINAGE. 1884+00	OFFSET. ℄	TEST HOLE 179
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE-BIRCH 4"-6"	ELEV.	MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 8"		High Ice
2					CL	CLAY -Silty-organic Low plastic		
4								
6						— 7'	F	Vs
8					CI	CLAY -Silty Med plastic		
10								Moderate Ice
12								
14						— 14'		Vc - Vr
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Sat.	
4						
6					Sat.	
8					Sat.	
10						
12					Moist	
14					Moist	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

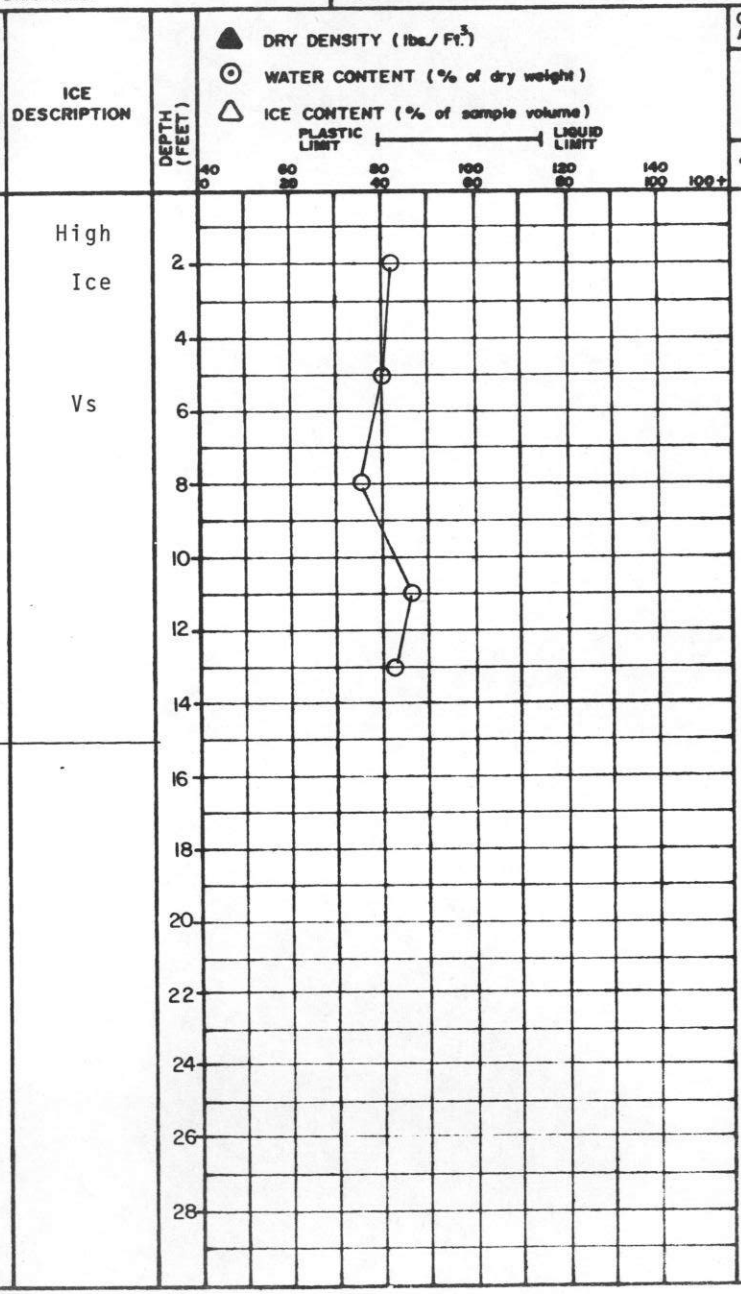
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-36	CHAINAGE. 1892+00	OFFSET. ℄	TEST HOLE 180
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		High
2						CLAY		Ice
						-Silty		
4						Sandy		
					CI	Med-High plastic		Vs
6								
8							F	
					CH			
10								
12								
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Sat.	
				Moist	
				Sat.	
				Sat.	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1899+00 | OFFSET. ℄

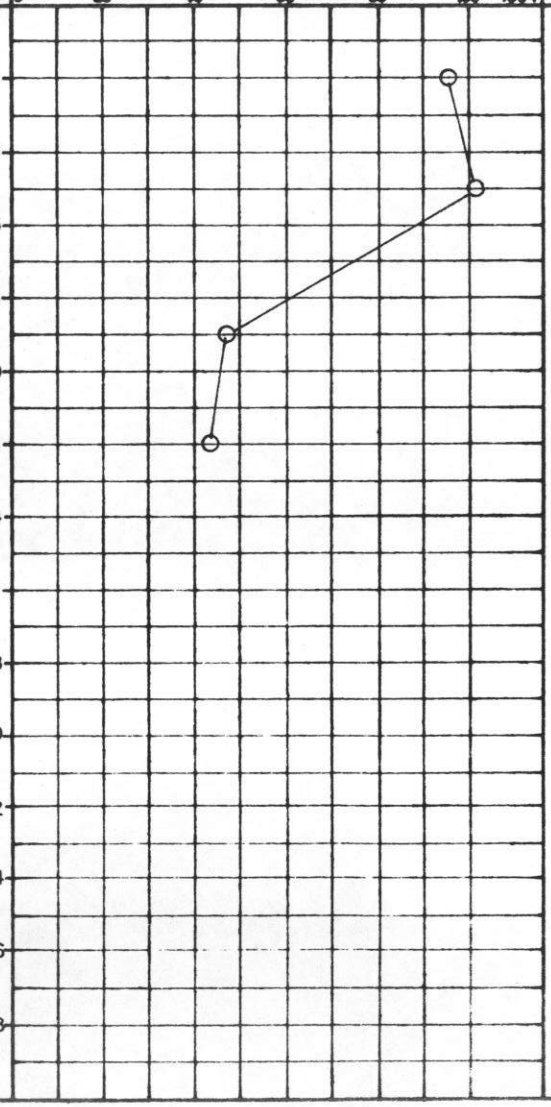
TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 181

MILE 900

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		
2						CLAY		High
4						-Silty		
						Sandy		
6					CL	Low-med plastic	F	Vs
8								Ice
10								
12								
14					CI	— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
6					Free Water	
8					Free Water	
12					Sat.	

DS-14-5-74 b

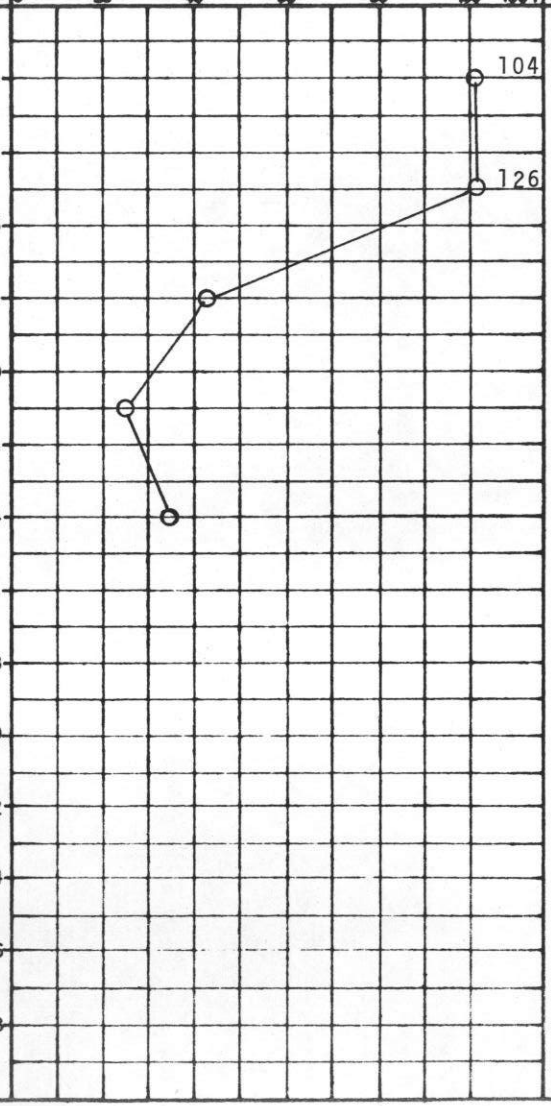
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1917+00	OFFSET. ℄	TEST HOLE 182
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 899

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		High
						3'		
4						SILT -Clayey Organic		Ice
6					ML		F	Vs
						7'		
8					CL CI	CLAY -Sandy Silty		
10						11'		
12					ML SM	SAND - Silty SILT - Sandy		
						13'		
14					CL	CLAY - Silty Sandy		
						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Sat.	
				Moist	
				Sat.	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

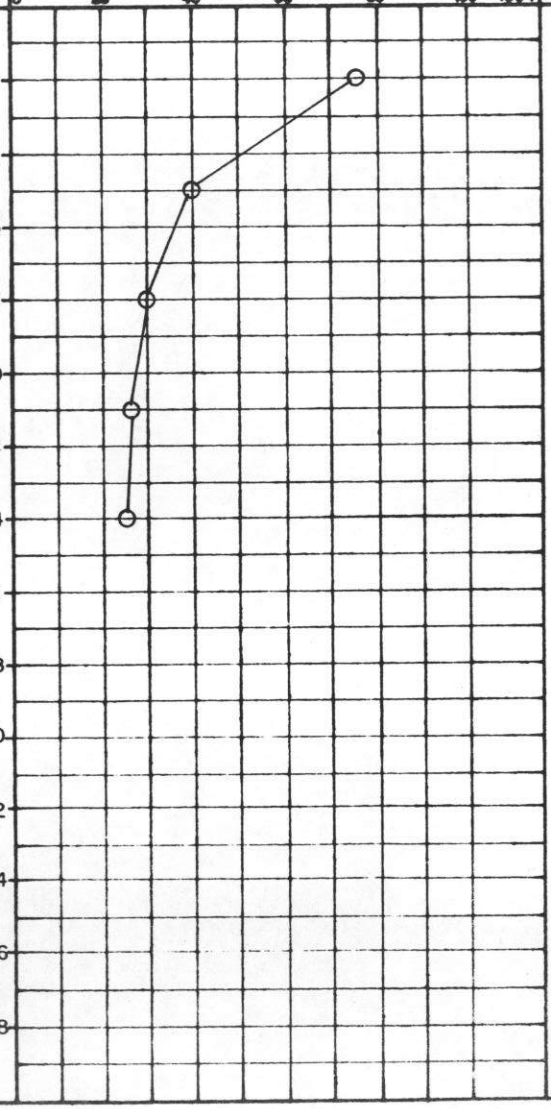
DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1925+00	OFFSET. ℄	TEST HOLE 183
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE 899

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 3"			
2					CL	CLAY -Silty Sandy Low-med plastic		High	Free Water
4					CI			Ice	Free Water
6							F	Vs	
8									Moist
10						— 11'			
12					ML SC	SAND - Silty, clayey SILT - Sandy			Sat.
14						— 14'			Sat.
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1931+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 184

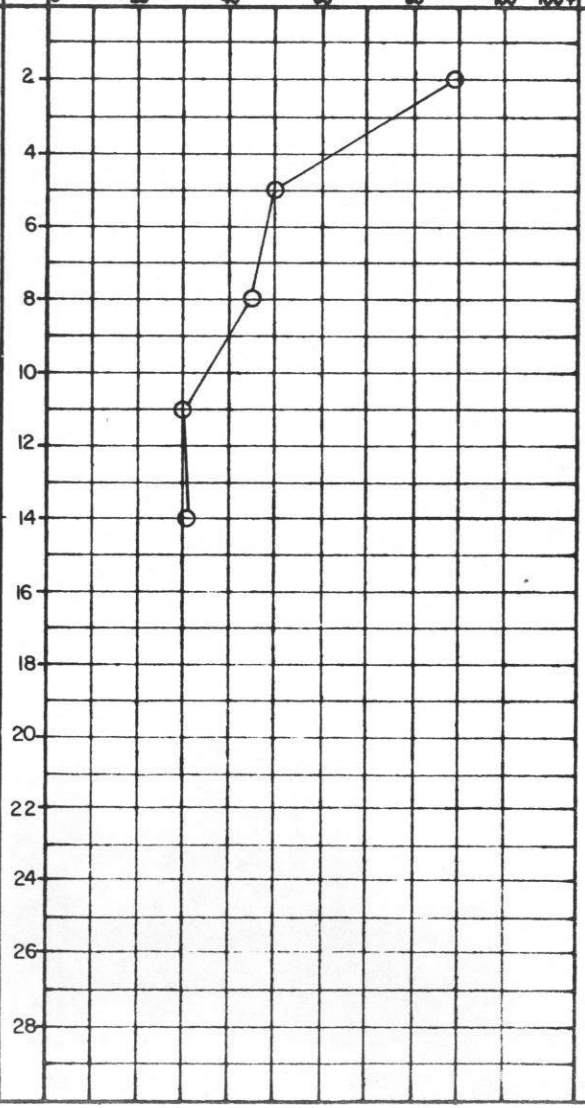
MILE 899

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 9"		
2						SILT -Clayey Org. to 4'		High Ice
4								
6					ML		F	Vs
8						— 8'		
10					CL	CLAY-Sandy, silty Low plastic — 10'		
12					ML	SILT -Clayey Sandy		
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Free Water	
				Sat.	
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

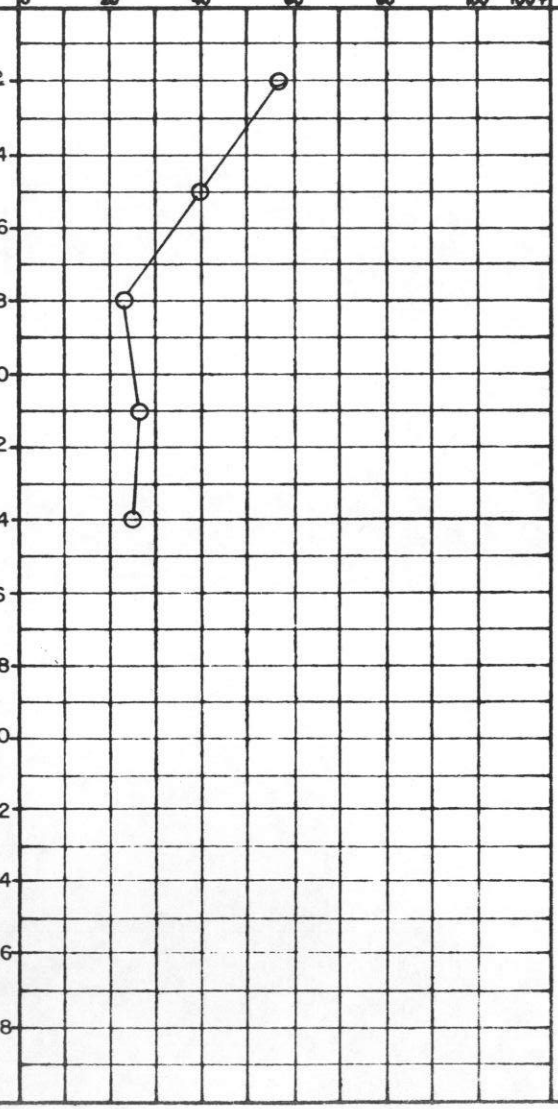
SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1942+00	OFFSET. ℄	TEST HOLE 185
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 899

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .5'		
2					ML	SILT -Clayey Sandy		High Ice
4						— 4'		
6					CL	CLAY -Silty Sandy Low plastic	F	Vs
8						— 8'		
10					ML	SAND -Silty Clayey SILT -Sandy		
12					SC			
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
4					Free Water	
8					Sat.	
10					Sat.	
14					Sat.	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1954+00 | OFFSET. ℄

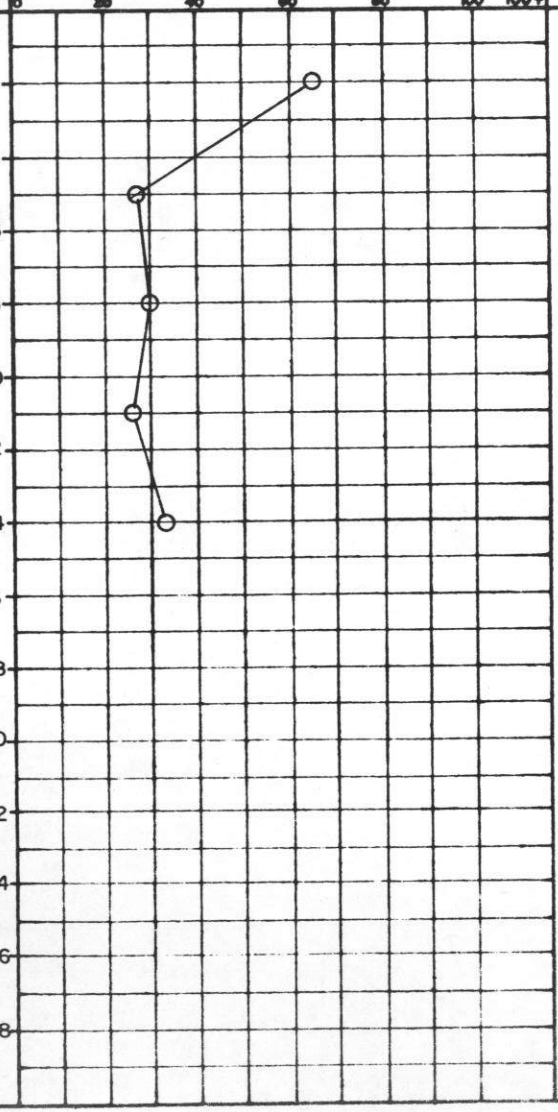
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 186

MILE 899

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.5'	F	High Ice Vs
2						CLAY -Sandy Silty Med plastic		
4								
6								Moderate To Low Ice Vc - Vr
8					CI			
10								
12								
14						— 14'		Vx
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Free Water
2					
4					Damp
6					
8					Damp
10					Damp
12					
14					Wet
16					
18					
20					
22					
24					
26					
28					

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1963+00 | OFFSET. ℄

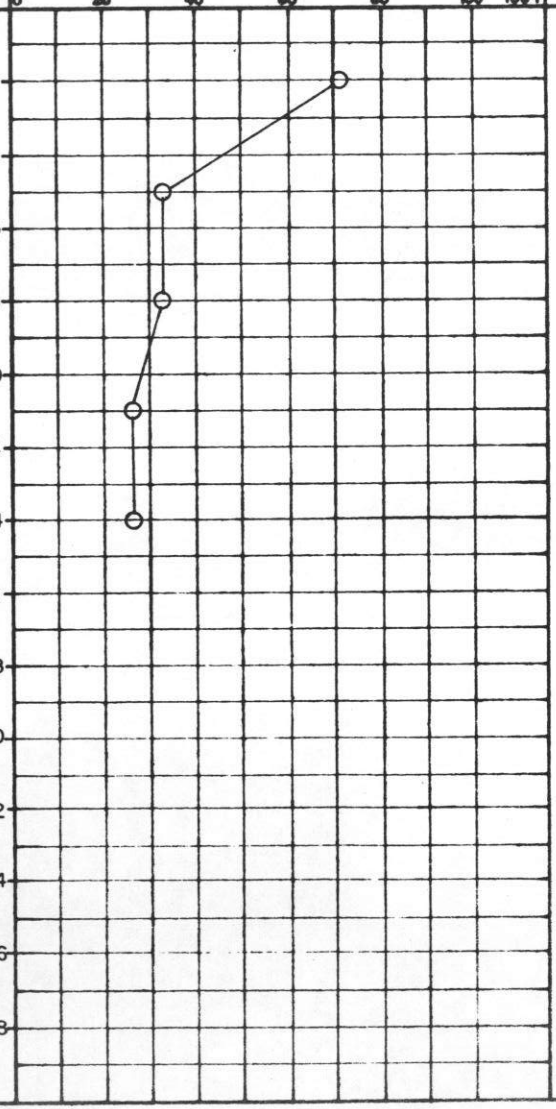
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 7" | ELEV.

TEST HOLE 187

MILE 899

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High Ice Vs
2						CLAY -Silty Sandy Pebbles Low-med plastic		
4					CL		F	
6								Moderate Ice
8					CI			
10								Vc - Vr
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DEPTH (FEET)	RELATIVE THAWED MOISTURE CONTENT
2	Free Water
6	Moist
8	Moist
12	Damp
14	Damp

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/3/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1973+00	OFFSET. ℄	
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 6"	ELEV.	TEST HOLE 188
					MILE 898

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
2					Pt	PEAT — 1'		High Ice Vs	Free Water
4						CLAY -Silty Sandy Med plastic	F		Wet
6									
8					CI			Moderate Ice	Wet
10									
12								Vc - Vr	Damp
14						— 14'			Damp
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									

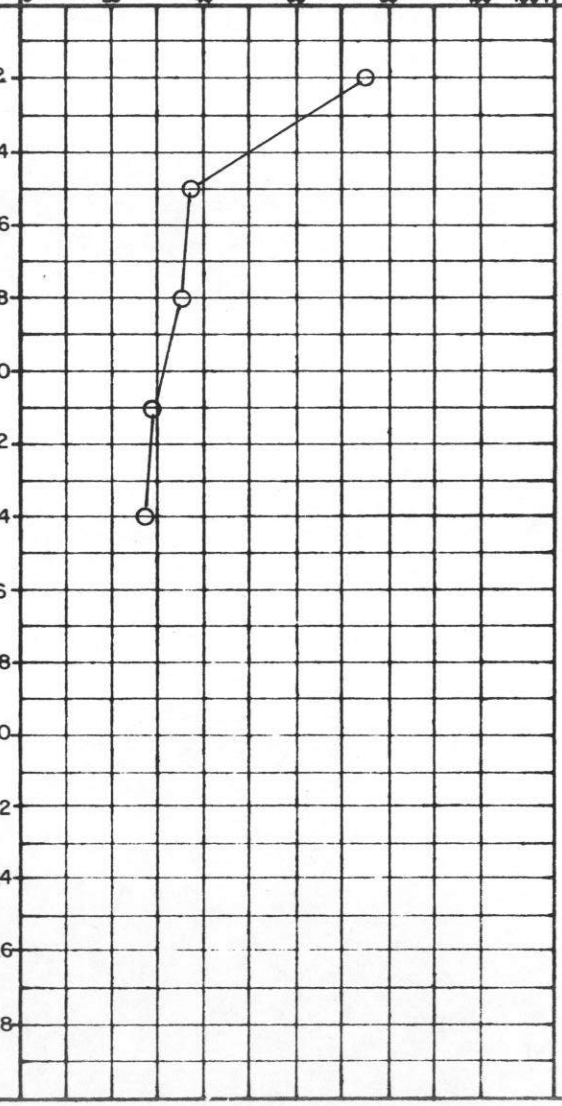
▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

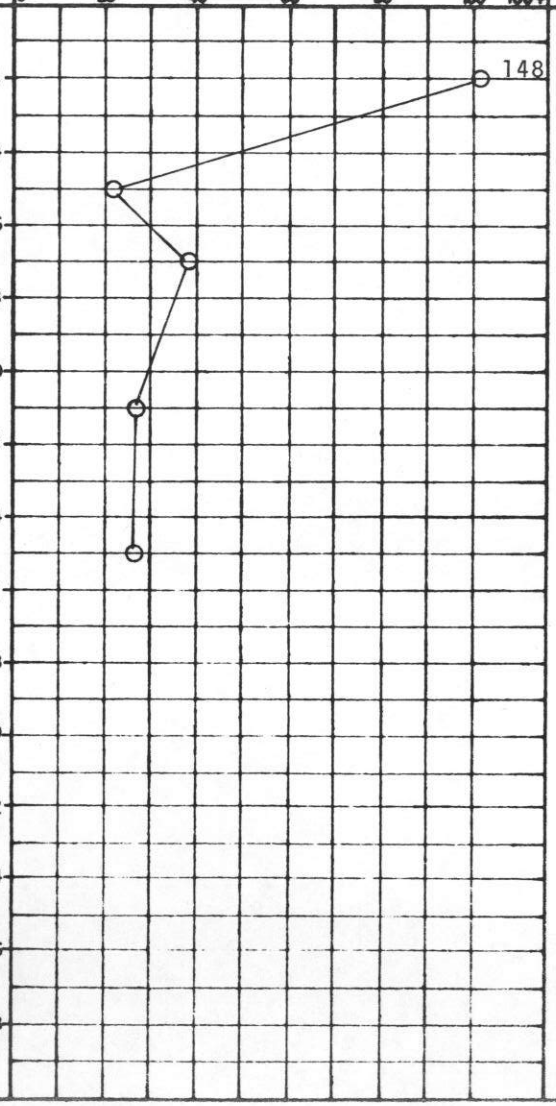
FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1983+00	OFFSET. ℄
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 7"	ELEV.

TEST HOLE 189

MILE 898

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0-4'					Pt	PEAT		High Ice Vs
4-15'					CI	CLAY -Silty Sandy Med plastic	F	Moderate Ice; Vc - Vr
15'						BOTTOM OF HOLE - 15'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Moist	
				Wet	
				Damp	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

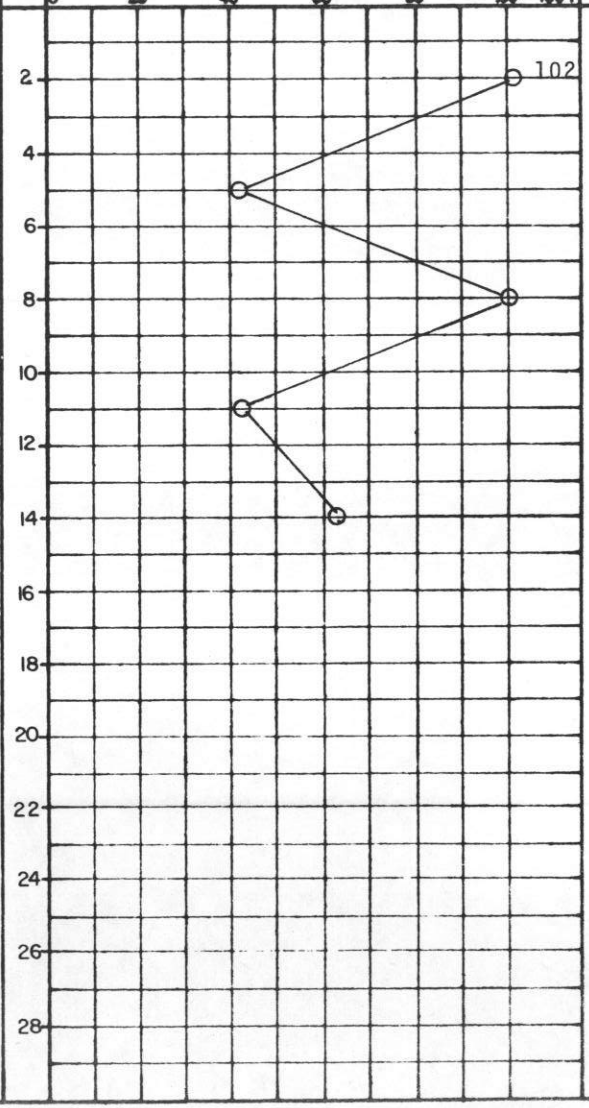
FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. A 22963-111 | CHAINAGE. 1992+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE-BIRCH MAX 4" | ELEV.

TEST HOLE 190

MILE 898

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		High	Free Water
0.9'									
2						CLAY		Ice	
4						-Silty			Wet
6					CI	Sandy	F	Vs	
8						Med-high plastic			Free Water
10									Sat.
12					CH				
14									Sat.
14'						BOTTOM OF HOLE - 14'			
16									
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

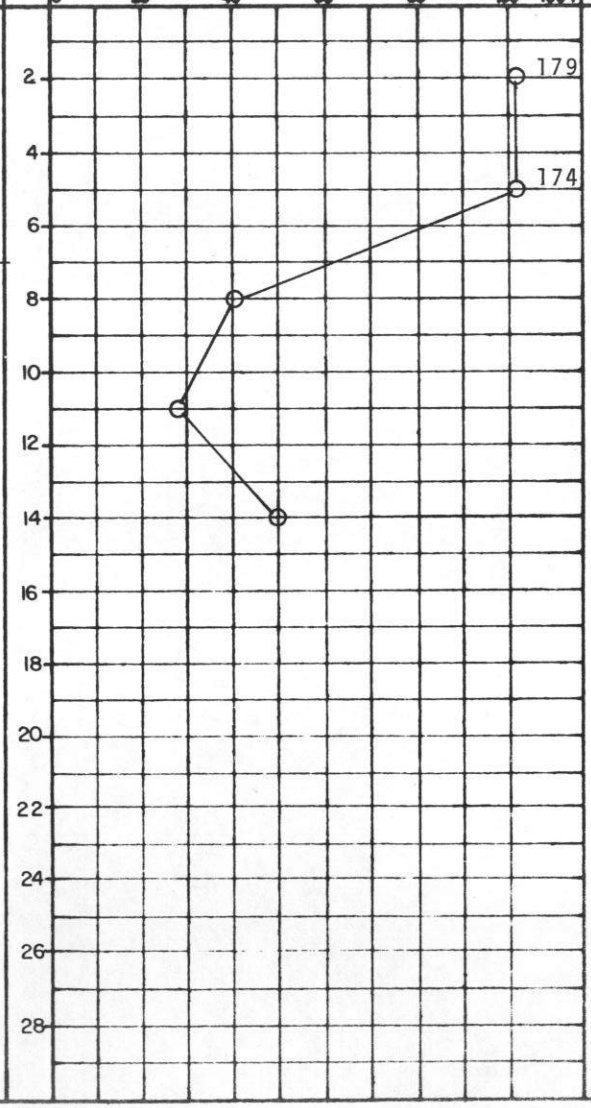
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22963-111	CHAINAGE. 1999+00	OFFSET. ℄	TEST HOLE 191
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE 898

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'	F	High Ice
2						CLAY -Silty Sandy Med plastic		
4								
6								Vs
8					CI			Moderate To High Ice Vc - Vr Vx
10								
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0						
2					Free Water	
4					Free Water	
6						
8					Moist	
10					Moist	
12						
14					Sat.	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-111 | CHAINAGE. 2011+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 5" | ELEV.

TEST HOLE 192-A

MILE 898

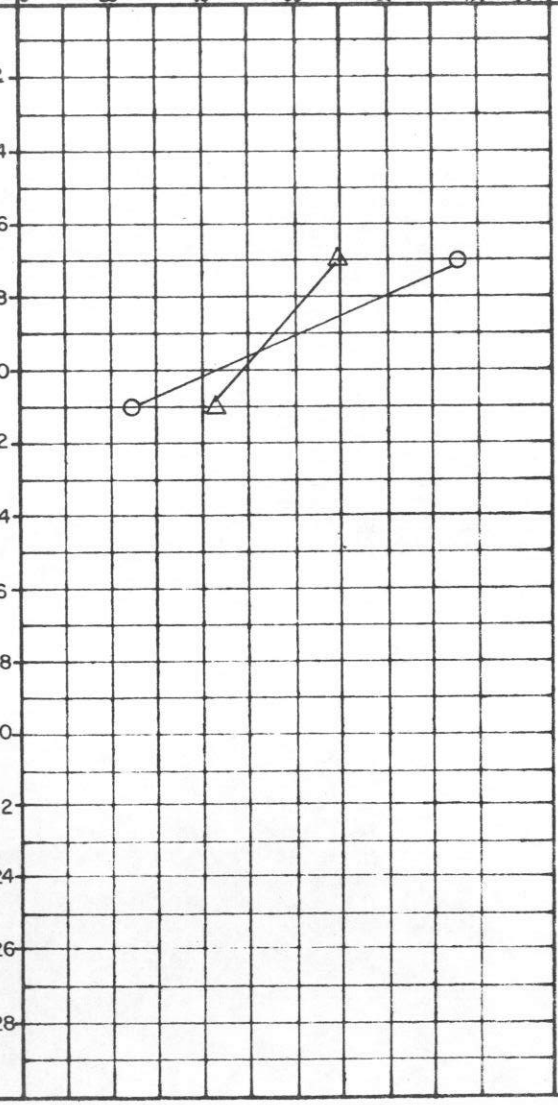
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 7"		
2								
4						CLAY -Silty Med plastic		
6					CI		F	Vs
8								
10								
12						—12'		
14						BOTTOM OF HOLE - 12'		
16								
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT

REMARKS

Free Water

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

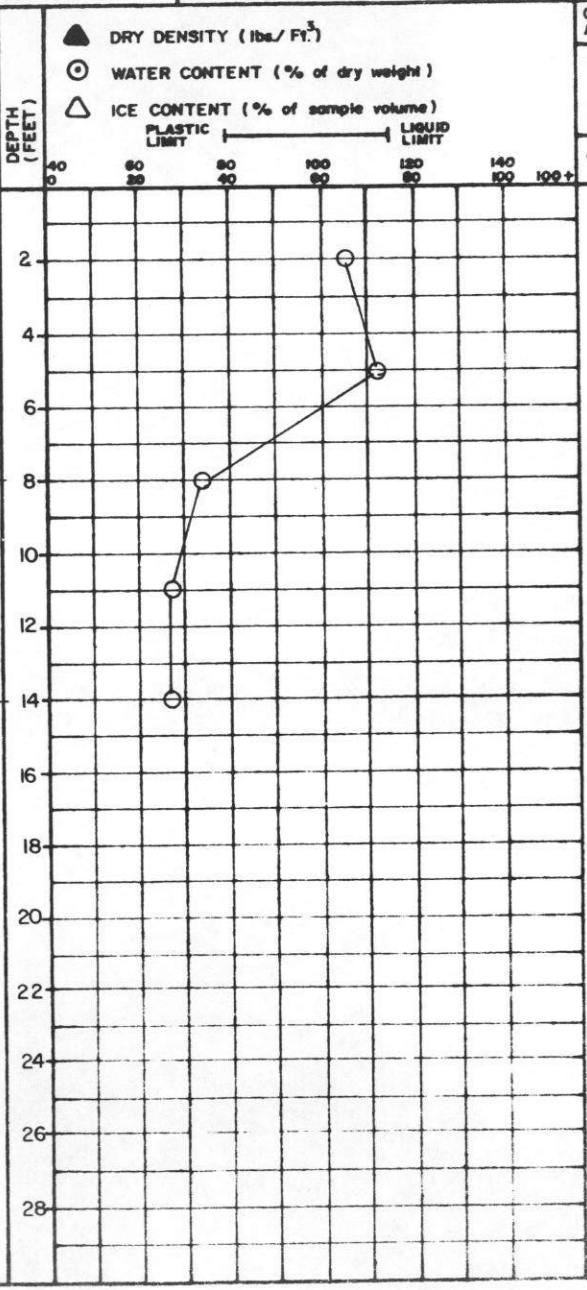
FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-111 | CHAINAGE. 2011+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 5" | ELEV.

TEST HOLE 192

MILE 898

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 7"		High	Free Water
2						CLAY -Silty Med plastic		Ice	
4									Free Water
6					CI		F	Vs	
8								Moderate	Moist
10								Ice	Moist
12								Vc - Vr	
14						14'			Moist
16						BOTTOM OF HOLE - 14'			
18									
20									
22									
24									
26									
28									



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-111 | CHAINAGE. 2021+00 | OFFSET. ℄

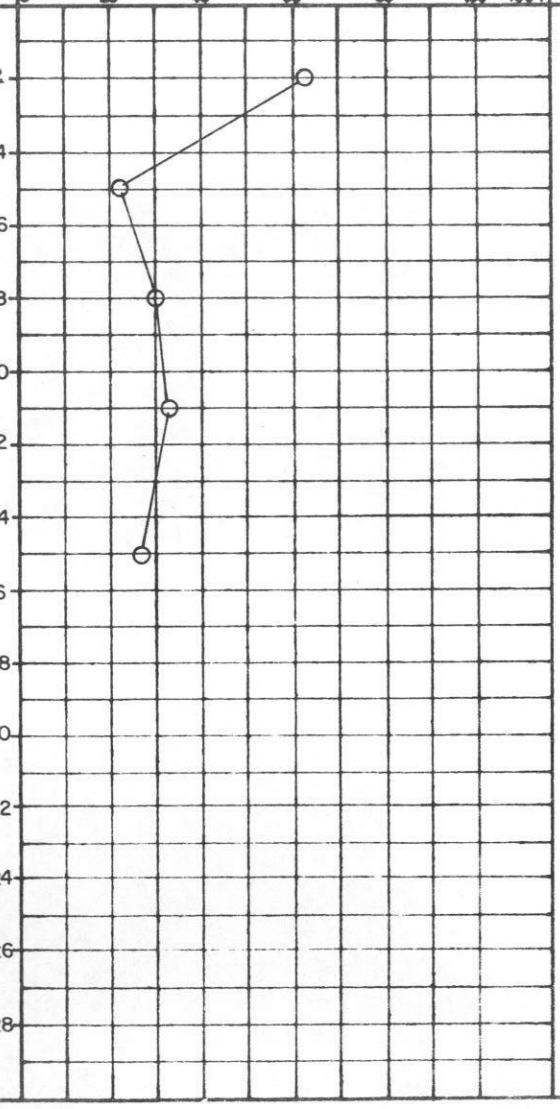
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. WILLOWS | ELEV.

TEST HOLE 193

MILE 898

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High Ice Vs
2						CLAY -Silty Sandy Med plastic		
4							F	
6								
8					CI	Cobbles @ 9'		Moderate Ice
10								
12								Vc - Vr
14						— 15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Sat.
4					Damp
6					
8					Moist
10					Moist
12					
14					Damp

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-111 | CHAINAGE. 2023+00 | OFFSET. ℄

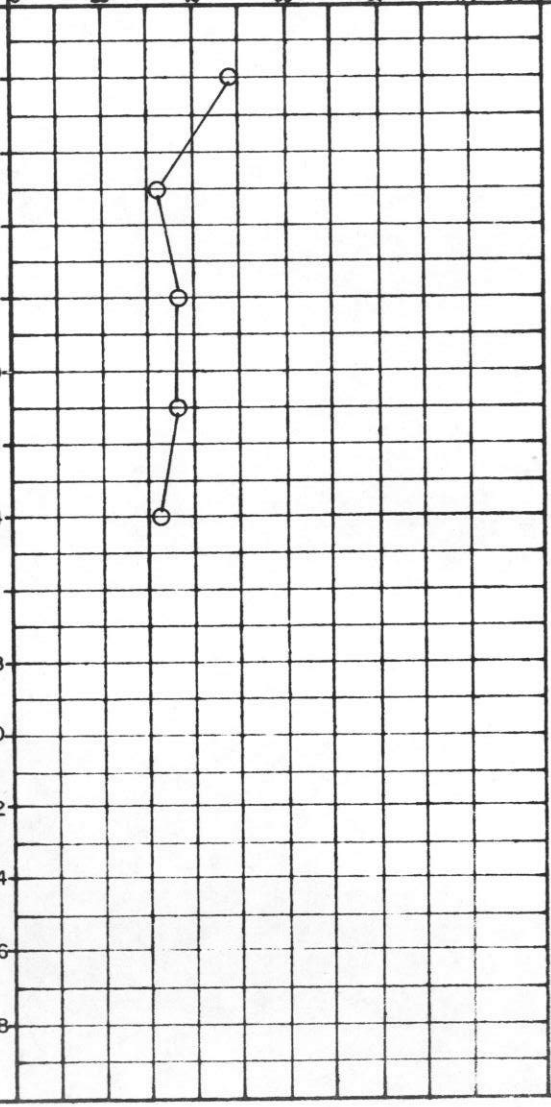
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 7" | ELEV.

TEST HOLE 194

MILE 897

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"	F	High Ice Vs
2						CLAY -Silty Sandy Med plastic		
4								
6					CI			Moderate Ice Vc - Vr
8								
10								
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL	RELATIVE THAWED MOISTURE CONTENT
	%	%	%	%	
					Sat.
					Moist
					Moist
					Moist
					Moist

REMARKS

DS-14-5-74 b

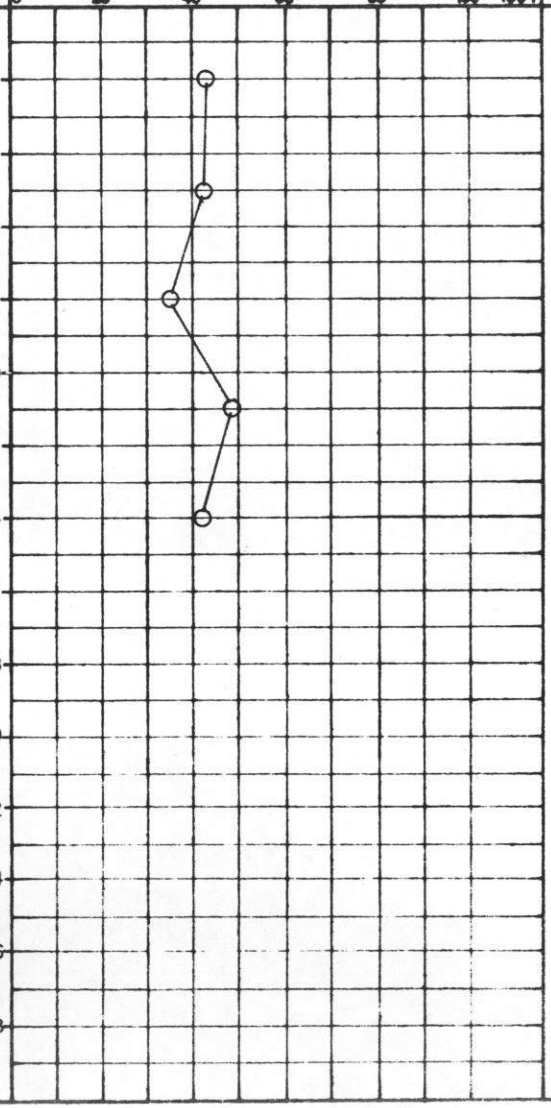
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A 22963-111	CHAINAGE. 2033+00	OFFSET. ℄	TEST HOLE	195
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE	897

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — .5'		High Ice Vs					Sat.	
2						CLAY -Silty Med-high plastic								
4													Wet	
6					CI		F							
8					CH			Moderate Ice					Moist	
10													Wet	
12								Vc - Vr						
14						— 14'							Wet	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

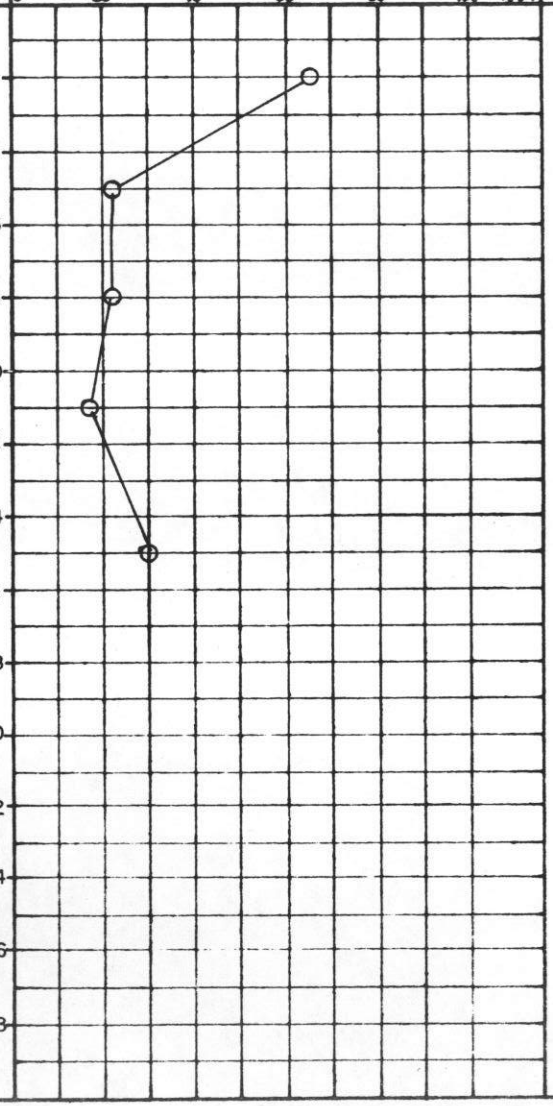
FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-111 | CHAINAGE. 2042+00 | OFFSET. ℄

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE & BIRCH | ELEV.

TEST HOLE 196

MILE 897

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High
1.5'								
2					CL	CLAY		Ice
						-Silty		
					OL	Organic		Vs
4'								
4						CLAY	F	
						-Silty		
						Pebbles		
						Med plastic		Moderate
8								Ice
10					CI			Vc - Vr
12								
14								
15'								
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Moist	
				Moist	
				Moist	
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2049+00	OFFSET. ℄	TEST HOLE 197
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE 897

DRY DENSITY (lbs./Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		High Ice					Free Water	
2						CLAY -Silty Sandy Low-med plastic								
4													Free Water	
6					CL			Vs						
8						Pebbles	F						Free Water	
10					CI	— 10.5'								
12					ML SC	Siltstone Frags. SAND-Silty, SILT-Sandy } Clayey		Low Ice					Damp	
14						— 14'		Vx					Damp	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-109 | CHAINAGE. 2058+00 | OFFSET. ℄

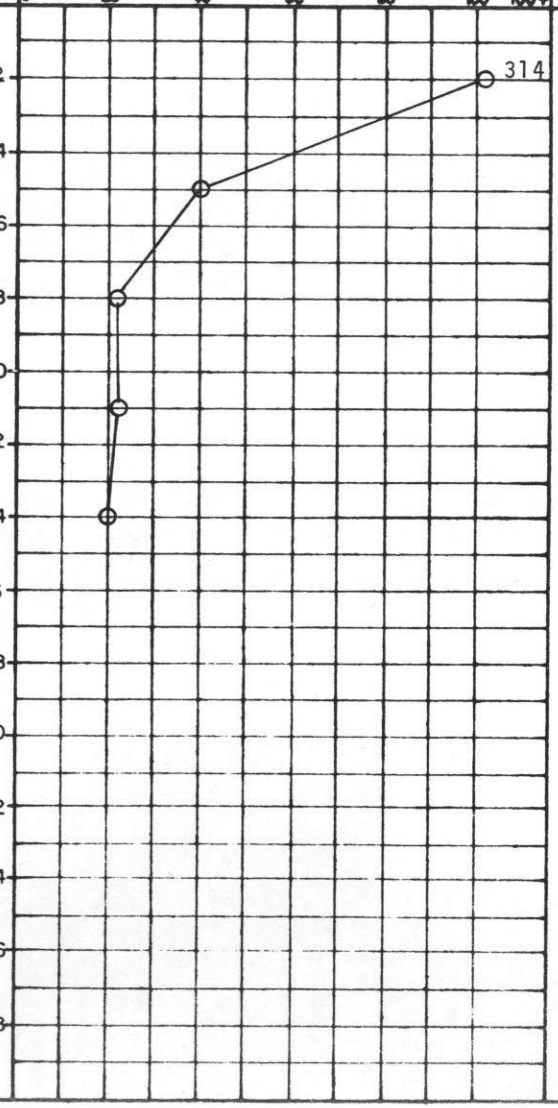
TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 5" | ELEV.

TEST HOLE 198

MILE 897

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
						3.5'		Vs
						CLAY -Silty Sandy Pebbles Low-med plastic	F	Moderate Ice
					CL			
					CI			Vc - Vr
						14'		
						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22963-109 | CHAINAGE. 2066+00 | OFFSET. ℄

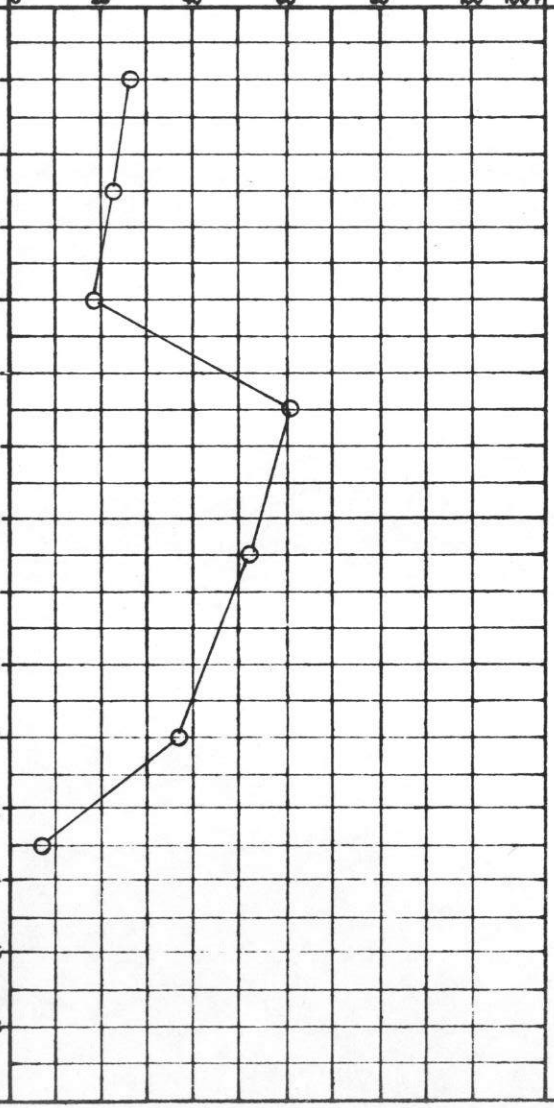
TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 199

MILE 897

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .8'		Moderate
2						CLAY		To
						-Silty		
						Sandy		High
4						Pebbles		
						Low-med plastic		Ice
6								Vc - Vr
8					CI			Vs
10							F	High
								Ice
12								
14								
16								. Vs
18								
20								
22								Nbn
24						Gravelly		
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL	RELATIVE THAWED MOISTURE CONTENT	REMARKS
	%	%	%	%		
0						
2					Sat.	
4						
6					Sat.	
8					Moist	
10					Free Water	
12						
14					Free Water	
16						
18						
20					Free Water	
22					Moist	
24						
26						
28						

DS-14-5-74 b

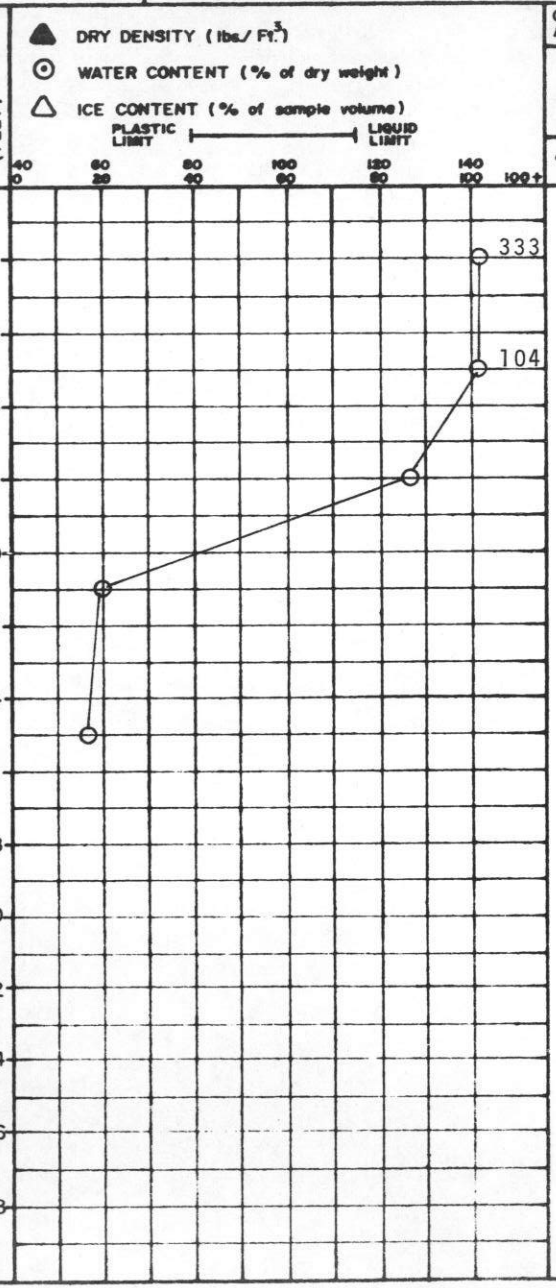
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2075+00	OFFSET. ℄	TEST HOLE 200
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 7"	ELEV.	MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.1'	F	High Ice Vs					Free Water	
2					ML OL	SILT -Clayey Organic							Free Water	
4														
6													Sat.	
8														
10					CL CI	CLAY -Silty Sandy Pebbles Low-med plastic — 10'		Moderate Ice Vc - Vr					Wet	
12														
14						15'							Moist	
16						BOTTOM OF HOLE - 15'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

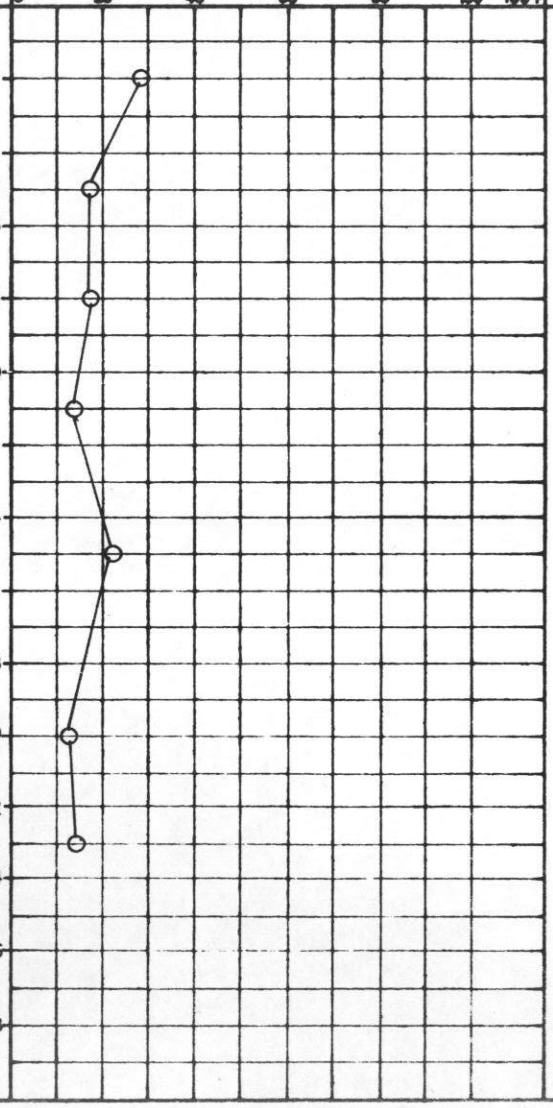
DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 6/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2082+00	OFFSET. ℄	TEST HOLE	201
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE-BIRCH 6" MAX	ELEV.	MILE	896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .9'		
2						CLAY -Sandy Silty Some pebbles & Shale fragments Low to medium plastic		Moderate
4								
6					CL			
8								
10							F	Ice
12					CI			
14								Vc - Vr
16								
18								
20								
22								
24						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat	
				Moist	
				Moist	
				Damp	
				Moist	
				Damp	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

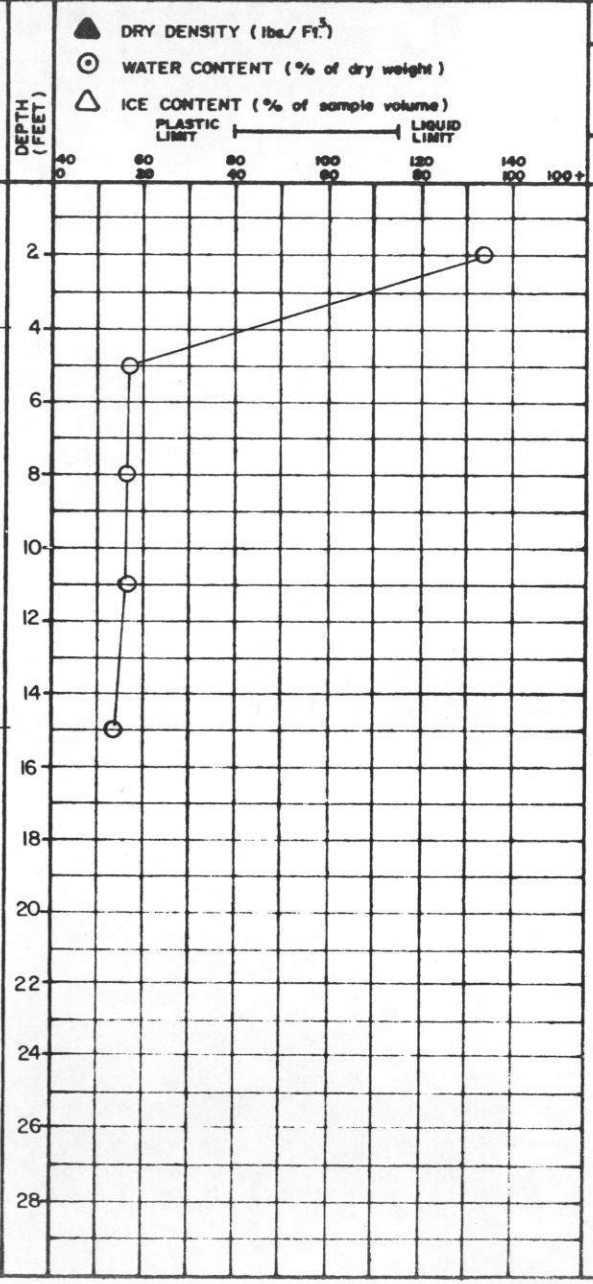
FIELD ENG. B. CONSTANT | DATE DRILLED. 6/12/73 | AIRPHOTO NO. A 22963-109 | CHAINAGE. 2089+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX 5" | ELEV.

TEST HOLE 202

MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .7'		High Ice Vs
2						CLAY -Silty Sandy Pebbles Low-med plastic		
4					CL		F	
6								
8								Moderate To Low Ice Vc - Vr Vx
10					CI			
12								
14						15'		
16						BOTTOM OF HOLE - 15'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 6/12/73 | AIRPHOTO NO. A 22963-109 | CHAINAGE. 2099+25 | OFFSET. ℄

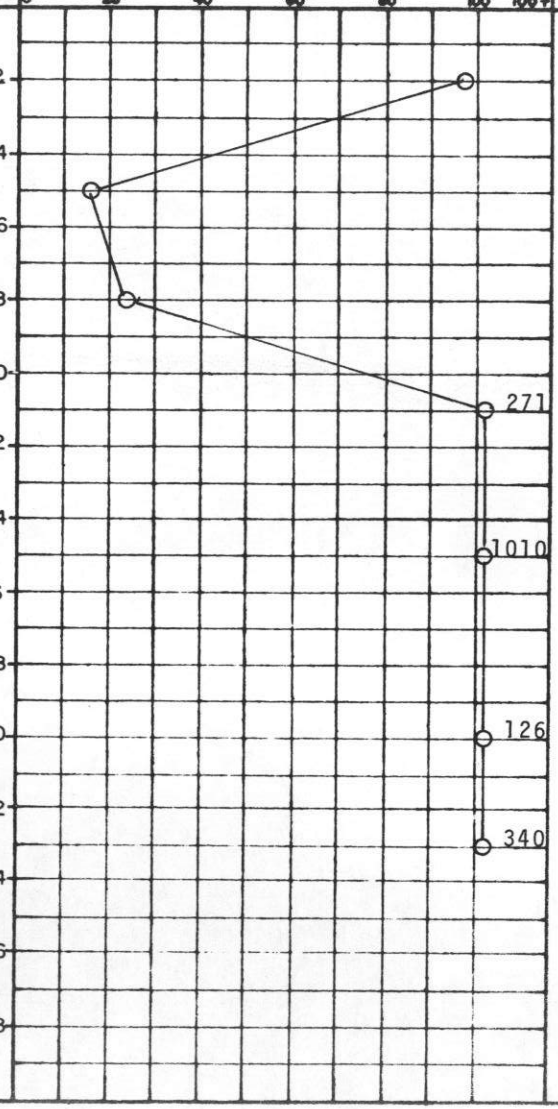
TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX. 9" | ELEV.

TEST HOLE 203

MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .8'		High Ice
2						CLAY -Silty Sandy Organic to 4'	F	Vs
4					CI	Med plastic		Moderate Ice
6								
8								Vc - Vr
10								
12						ICE -Some clay		ICE
14								
16								
18								
20								
22								
24						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water
				Wet
				Wet
				Water To 25'

REMARKS

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 7/12/73 | AIRPHOTO NO. A 22963-109 | CHAINAGE. 2109+75 | OFFSET. ℄

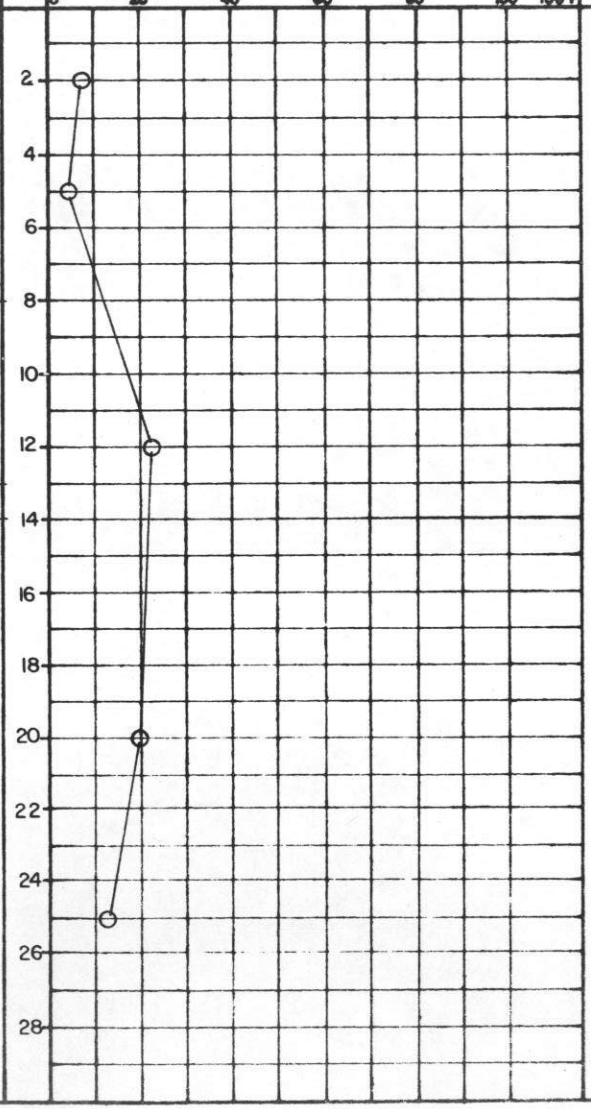
TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 204

MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0								
2					GP	GRAVEL -Sandy	F	Nbn Frozen Low To Nil Ice
4								
6								
8								High Ice Vs
10								
12								
14						ICE		ICE
16					GP	GRAVEL -Sandy	F	Vs High Ice
18								
20								
22								
24								
26								
28						30'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Damp	
				Free Water	
				Free Water	
				Free Water	

BOTTOM OF HOLE - 30'

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

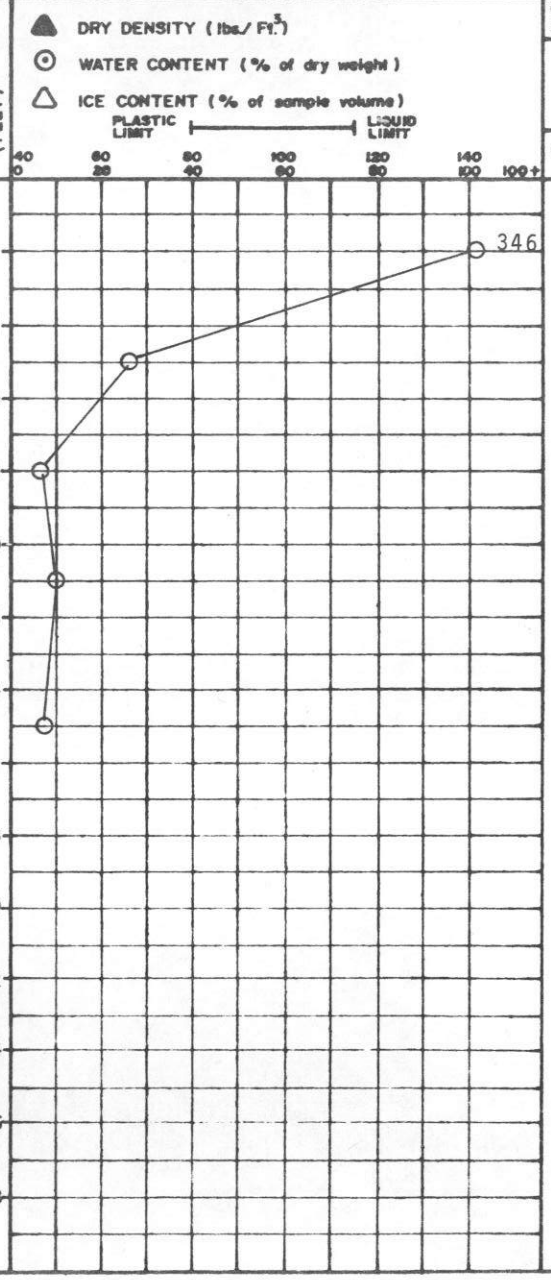
FIELD ENG. B. CONSTANT | DATE DRILLED. 6/12/73 | AIRPHOTO NO. A 22963-51 | CHAINAGE. 2116+00 | OFFSET. ℄

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE MAX 7" | ELEV.

TEST HOLE 205

MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		High Ice Vs
4						4'		
6					CL	CLAY -Silty Sandy Gravelly	F	
8						7'		Low Ice
10					GC	GRAVEL -Clayey		
12						10'		Vx
14					CL	CLAY -Sandy Gravelly Low plastic Pebbles		
16						15'		
18						BOTTOM OF HOLE - 15'		
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Sat.	
				Moist	
				Moist	
				Damp	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT | DATE DRILLED. 6/12/73 | AIRPHOTO NO. A 22963-51 | CHAINAGE. 2119+00 | OFFSET. ℄

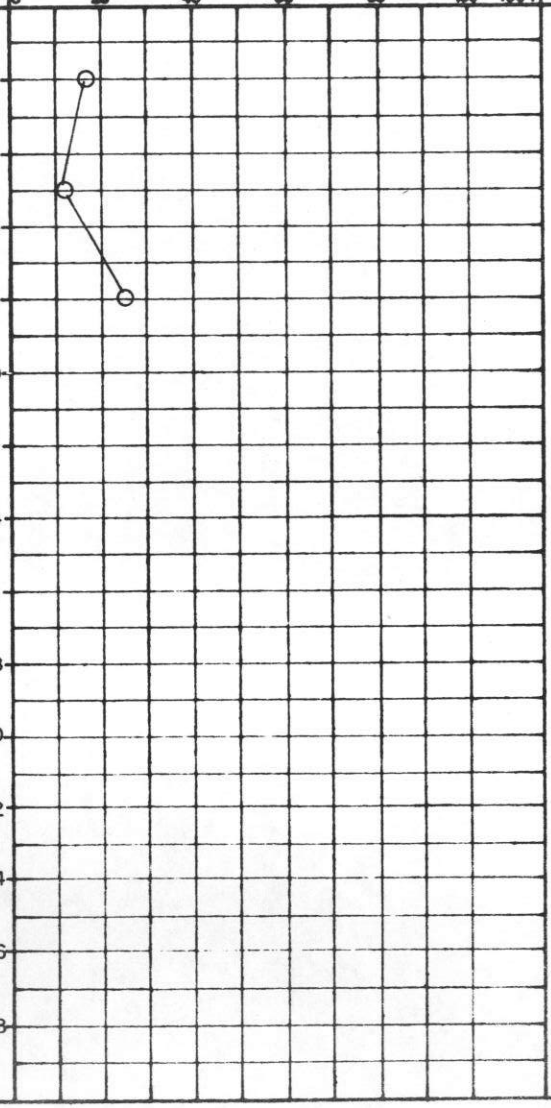
TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 206

MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	Moderate Ice
2'								
					CI	CLAY -Sandy Silty Pebbles-gravelly Med plastic		Vc - Vr
9'								
						ICE		ICE
14'								
						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Wet	

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE:

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22963-51	CHAINAGE. 2124+00	OFFSET. ℄
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 206A

MILE 896

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0						BOULDERS		
2						2'		
4						CLAY -Gravelly Sandy Silty Low plastic		High Ice Vs
6								
8							F	
10					CL			
12								
14								
16								
18								
20						20'		Vs
22						BOULDERS		Low Ice
24						25'		Vx
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2						
4					Sat.	
6						
8						
10					Sat.	
12						
14						
16						
18						
20					Wet	
22						
24						
26						
28						

BORROW PIT 1

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971-104	CHAINAGE. 371+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. RIDGE	VEGETATION. SPRUCE	ELEV.

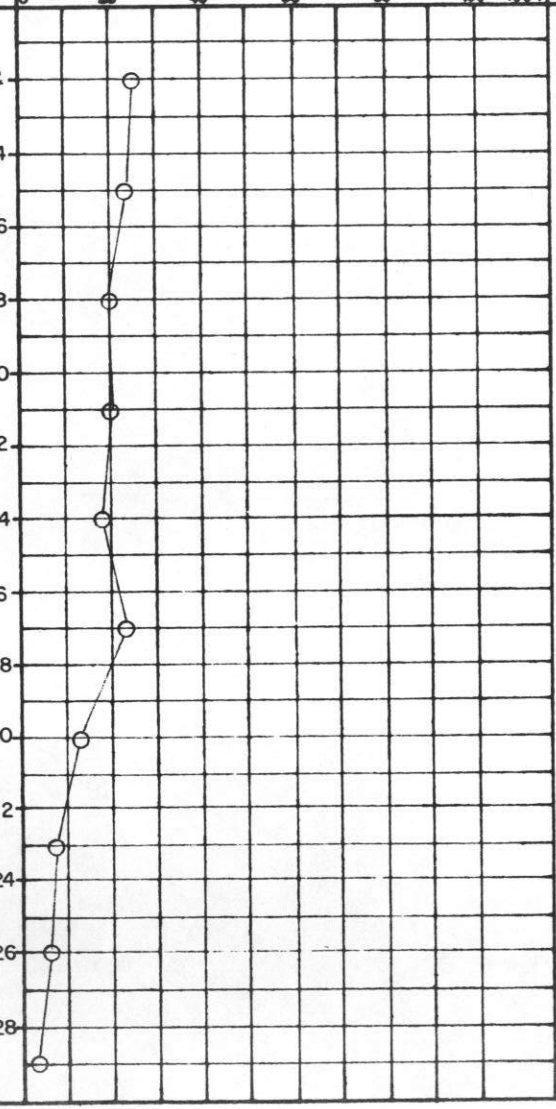
TEST HOLE 1

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		Moderate
2						CLAY -Silty Sandy Few Pebbles Medium plastic		
4								
6								Ice
8								
10					CI		F	
12								Vc - Vr
14								
16								
18								Low To Nil Ice Vx
20								
22								
24								
26						26'		
28						SHALE -Soft to hard		Nbn
						29'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Wet
4					Wet
8					Moist
10					Moist
14					Moist
18					Wet
20					Damp
22					Humid
26					Humid
29					Humid

BOTTOM OF HOLE - 29'

DS-14-5-74 b

BORROW PIT 1

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971-104	CHAINAGE. 371+00	OFFSET.	TEST HOLE 2
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		
2						CLAY -Silty Sandy Pebbles		Moderate
4								Ice
6					CL	Low-med. plastic		
8					CI			Vc - Vr
10							F	
12								
14						— 14'		
16						BOTTOM OF HOLE - 14' No Returns after 11'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

40	60	80	100	120	140	100+
0	20	40	60	80	100	

DEPTH (FEET)
2
4
6
8
10
12
14
16
18
20
22
24
26
28

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 1

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971-104	CHAINAGE. 371+00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		Moderate						
2						CLAY		To					Sat.	
4						-Silty								
6						Sandy	F	High					Sat.	
8					CL	Pebbles		Ice					Sat.	
10						Low plastic		Vc - Vr						
12								Vs					Wet	
14						— 14'								
16						BOTTOM OF HOLE - 14'								
18						Poor Returns after 10'								
20														
22														
24														
26														
28														

DS-14-5-74 b

BORROW PIT 2

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971-104	CHAINAGE. 361+50	OFFSET.	TEST HOLE 1
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		Moderate Ice Vc - Vr
2					CI	CLAY-Silty sandy Med. plastic — 3'		
4						Mixture of CLAY -Silty Sandy Siltstone	F	Low
6								
8					CL	Low-med. plastic		Ice
10					CI	Cobbles & Boulders Throughout		Vx
12								
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Wet	
4					Wet	
8					Moist	
10					Damp	
14					Damp	

DS-14-5-74 b

BORROW PIT 2

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. | AIRPHOTO NO. A22971-104 | CHAINAGE. 361+50 | OFFSET.

TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 2

MILE

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 160 180 200+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 8"		Moderate						
2						CLAY							Wet	
4						-Silty		Ice						
6					CI	Sandy Pebbles Med. plastic		Vc - Vr					Wet	
8							F						Moist	
10								Low						
11'								Ice					Damp	
12						SHALE & SILTSTONE								
14								Vx					Humid	
14'						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														

DS-14-5-74 b

BORROW PIT 2

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971-104	CHAINAGE. 361+50	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. HILL TOP	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — 8"								
2						SHALE & SILTSTONE		Low					Humid	
4								Ice						
6						— 6'	F						Damp	
8					SC	SAND -Gravelly Clayey Silty		Vx					Wet	
10						— 11'							Free Water	
12						CLAY -Silty sandy Pebbles Low plastic		High Ice Vs						
14					CL	— 14'							Damp	Hole in Bag
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

DS-14-5-74 b

BORROM PIT 3

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

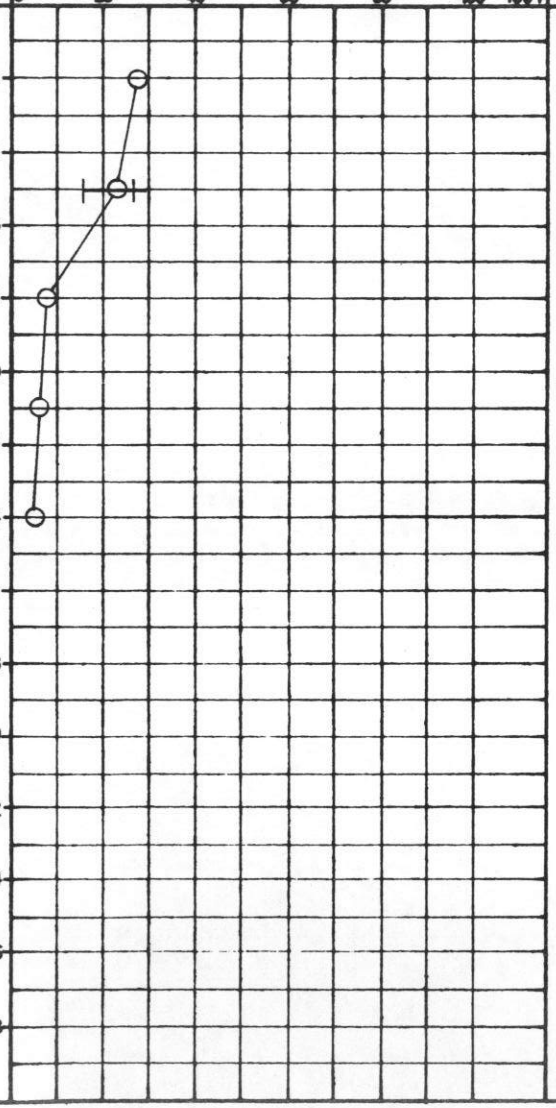
DRILL HOLE REPORT

SITE: MACKENZIE HWY. SECTION D

FIELD ENG.	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.	TEST HOLE 1
TECH. Pronych	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	Peat 8"		
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS - HARD LOW - MEDIUM PLASTIC PEBBLES & COBBLES FROM 3'	F	MODERATE ICE Vc - Vr
4								
6					Ci			
8						7½'		
10						SHALE MED. HARD TO HARD SILTSTONE		FROZEN Nbn
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					
4					
6					
8					
10					
12					
14					
16					
18					
20					
22					
24					
26					
28					

REMARKS

DS-14-5-74 b

BORROW PIT 3

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Pronych	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

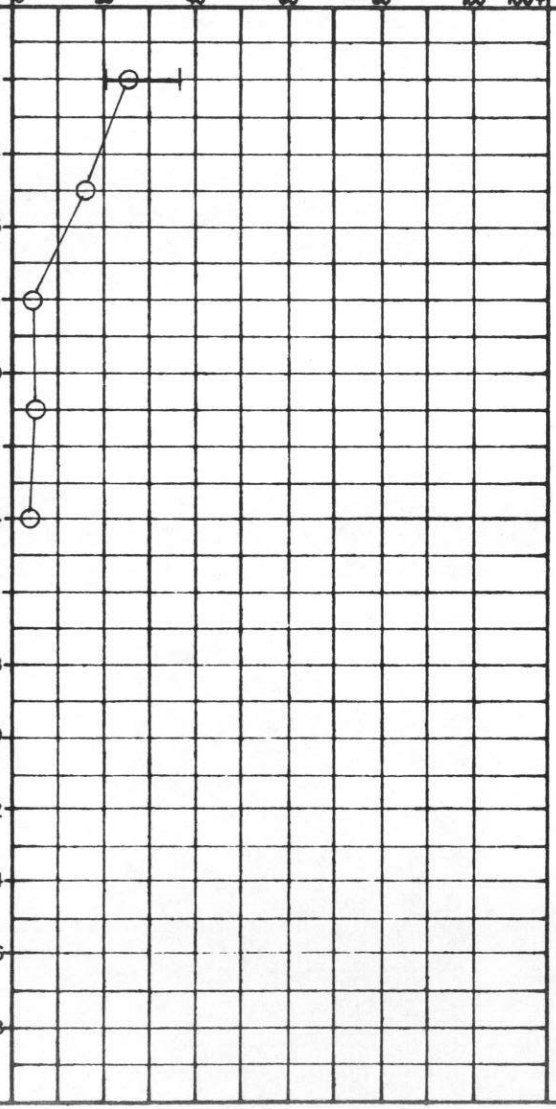
TEST HOLE 2

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					pt	PEAT 8"		
2					Cl	CLAY - SANDY SILTY HARD SHALE FRAGMENTS MED. PLASTIC COBBLES AT 3'		MODERATE ICE Vc - Vr
6						6'		
8						SHALE SOFT TO HARD SILTSTONE	F	FROZEN Nbn
14						14'		
16						BOTTOM OF HOLE - 14'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 109+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

DS-14-5-74 b

BORROW PIT 3

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Pronych	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 3

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

GRAIN-SIZE ANALYSIS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 8"							
2					Cl Ci	CLAY - SANDY SILTY SHALE FRAGMENTS LOW - MED. PLASTIC PEBBLES & COBBLES FROM 3'		MODERATE -- Vs -- ICE Vc - Vr					
8						SHALE SOFT TO HARD	F	FROZEN Nbn					
14						BOTTOM OF HOLE - 14' SILTSTONE - STRATEFIED NATURAL JOINTS 17'							
18						AT APPROX. 2" CORED TO 17'							

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

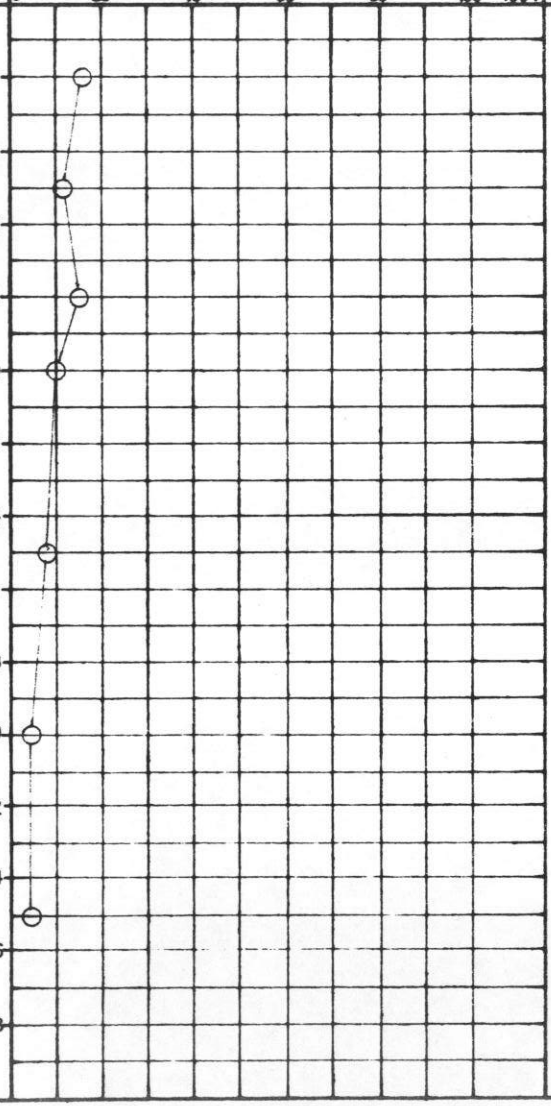
FIELD ENG.	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.	TEST HOLE 1
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		
2					Ci	CLAY - SANDY SILTY - SHALE FRAGMENTS MED. PLASTIC 4½'		LOW ICE Vx
4								
6						SHALE - HARD - SILTSTONE		
8							F	
10								FROZEN
12								
14								
16								
18								
20								
22								
24								
26								
28						BOTTOM OF HOLE - 26'		

DEPTH (FEET)

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.

DATE DRILLED. 24/11/73 | AIRPHOTO NO. A22971 - 144 | CHAINAGE. 447 + 00 | OFFSET.

TECH. Baine | RIG. Mayhew #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

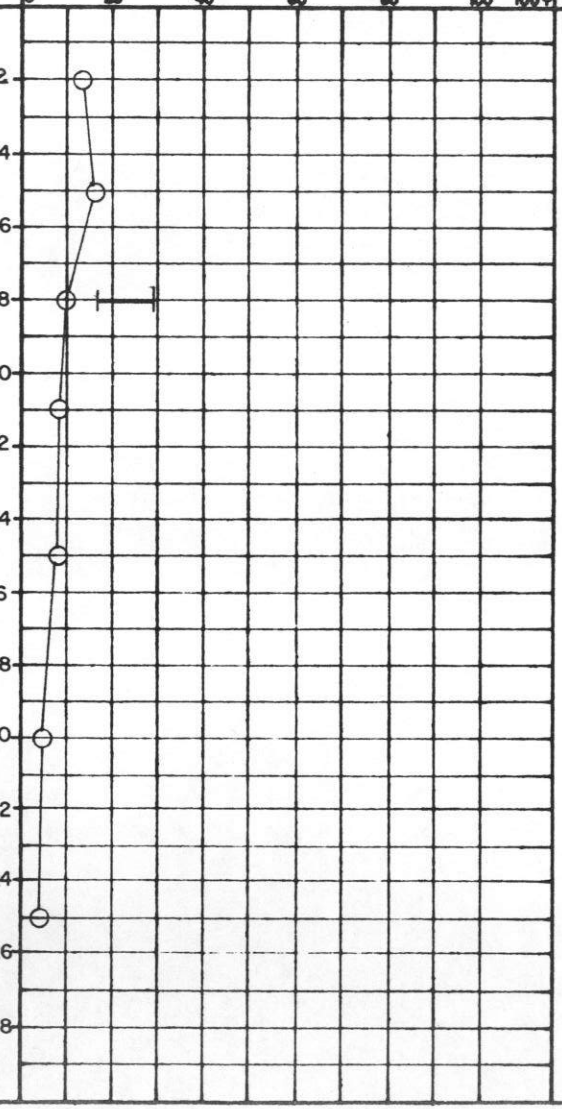
TEST HOLE 2

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS LOW TO MED. PLASTIC		LOW ICE CONTENT Vx
4								
6					Ci			
8						8'		
10						SHALE - SILTY SOFT TO HARD	F	FROZEN Nbn
12								
14								
16								
18								
20								
22								
24								
26						BOTTOM OF HOLE - 26'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY	SILT	SAND	GRAVEL	
%	%	%	%	

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

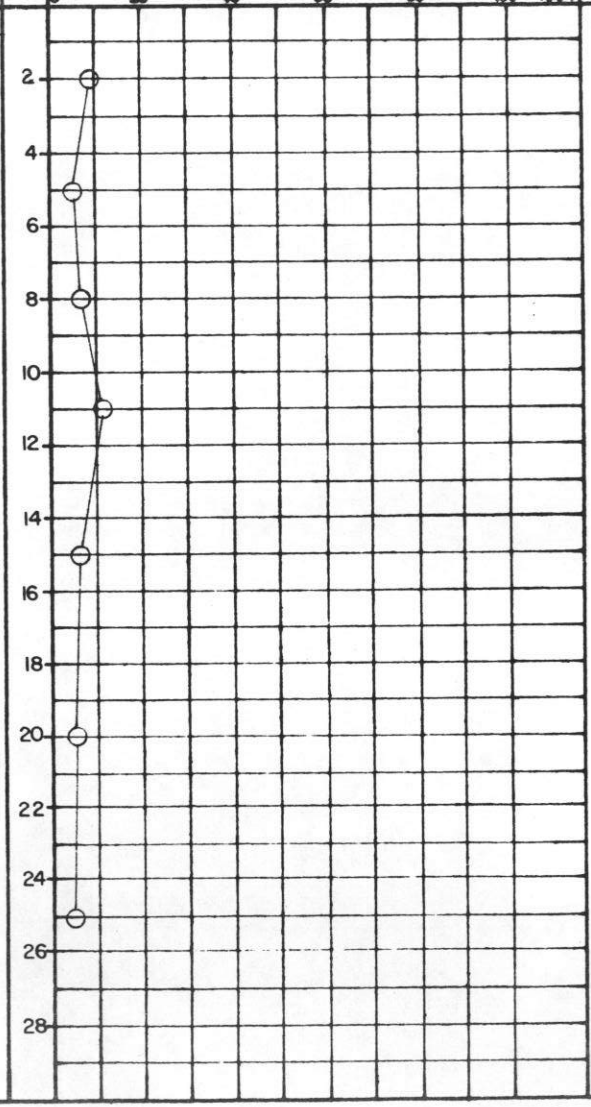
TEST HOLE 3

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT		Vs
2					Cl	CLAY - SANDY SILTY - SILT - SHALE FRAGMENT LOW PLASTIC		
4						4'		
6						SHALE		FROZEN
8						MED. HARD TO HARD		
10						SILTSTONE?	F	
12								
14								Nbn
16								
18								
20								
22								
24								
26						BOTTOM OF HOLE - 26'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

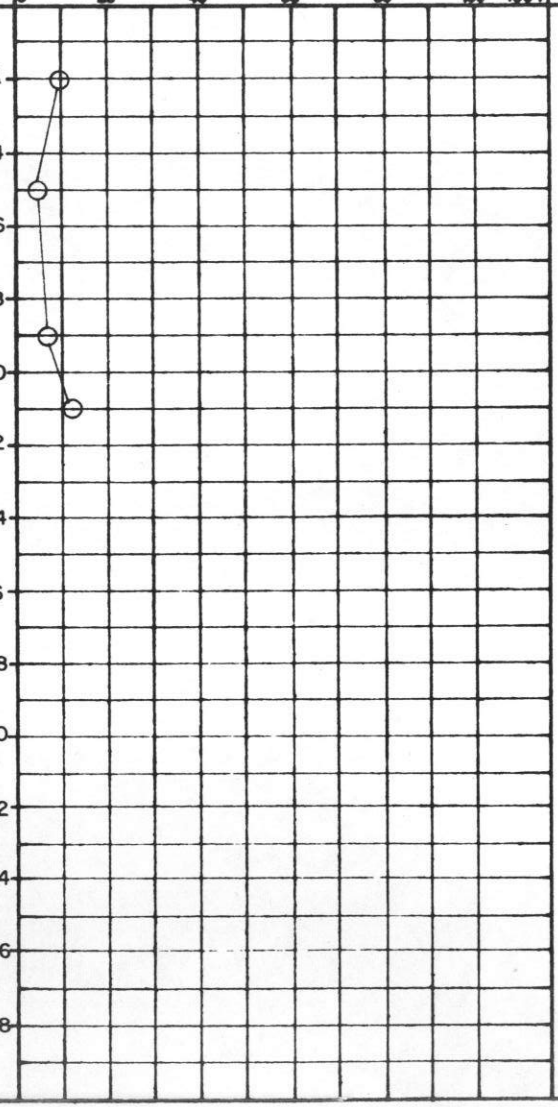
FIELD ENG.	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 4

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 2'		
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS		FROZEN
4								
6						SHALE MED. HARD TO HARD SILTSTONE		Nbn
8								
10							F	
12								
14						15½'		
16						SILTSTONE - JOINTS APPROX. 5" 16½'		
18						BOTTOM OF HOLE 16½'		
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 25/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

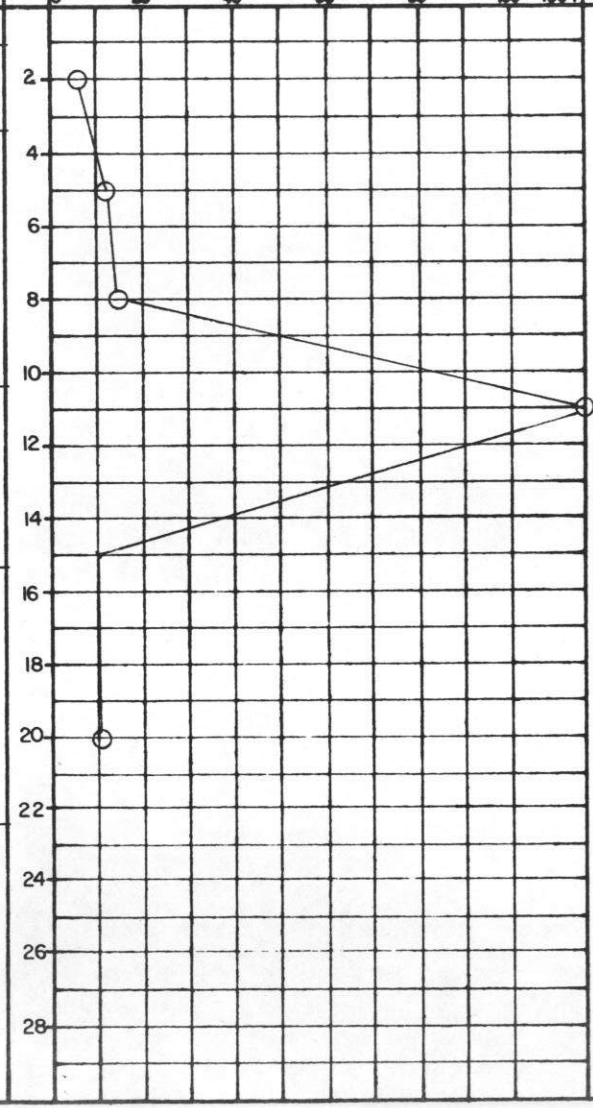
TEST HOLE 5

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1'		Vs
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS 3'		Vx
4						SHALE - SILTY		
6						CLAY - SANDY SILTY		FROZEN
8					Ci		F	Nbn
10						10'		
12						ICE		ICE
14						15'		
16						SHALE - SILTSTONE HARD		
18								
20								FROZEN Nbn
22						22'		
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
10					WATER

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 25/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 6

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1½'		
2					Cl Ci	CLAY - SANDY SILTY SHALE FRAGMENTS LOW - MED. PLASTIC		LOW ICE
6					Ci	CLAY - SILTY SANDY SHALE - SOFT TO HARD		Vx
10						SHALE - SILTSTONE HARD	F	FROZEN Nbn
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL	RELATIVE THAWED MOISTURE CONTENT
	%	%	%	%	

REMARKS

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 25/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

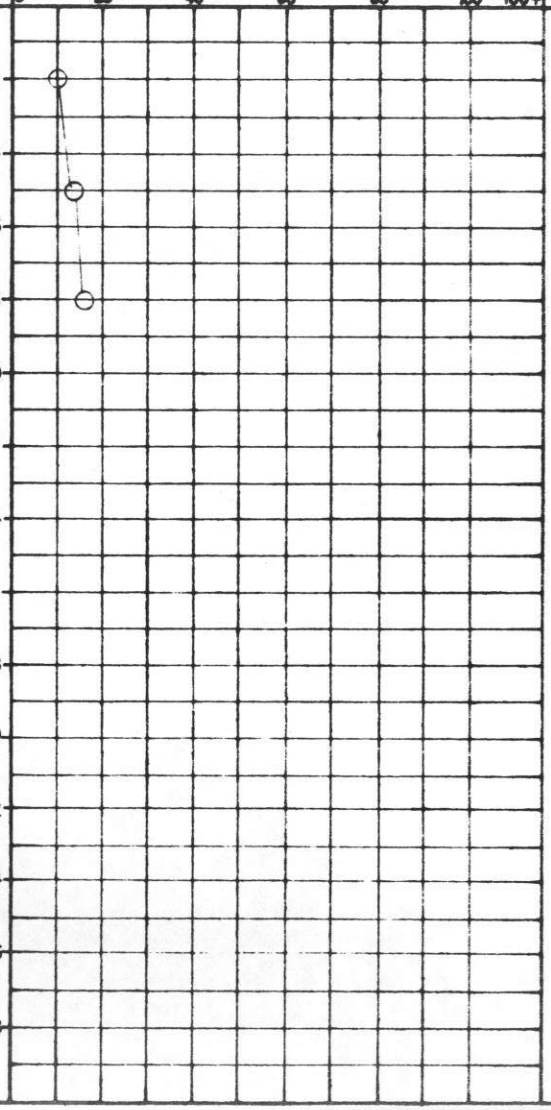
TEST HOLE 7

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 2'		
2					Ci	CLAY - SANDY SILTY 3'		LOW
4						SHALE - SILTSTONE	F	ICE
6						HARD		Vx
8								
10								
12						ICE 14'		ICE
14								
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Sawchuk	RIG. Mayhew #2	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 5"	ELEV.

TEST HOLE 9

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		
2					Cl	CLAY - SILTY SANDY SILT - CLAYEY SANDY - PEBBLES & SHALE FRAGMENTS LOW PLASTIC	F	LOW ICE Vx
12						12'		
						SHALE - SILTSTONE HARD		Nbn
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

DRY DENSITY (lbs./ Ft.^{3})

WATER CONTENT (% of dry weight)

ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 100+

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT

REMARKS

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

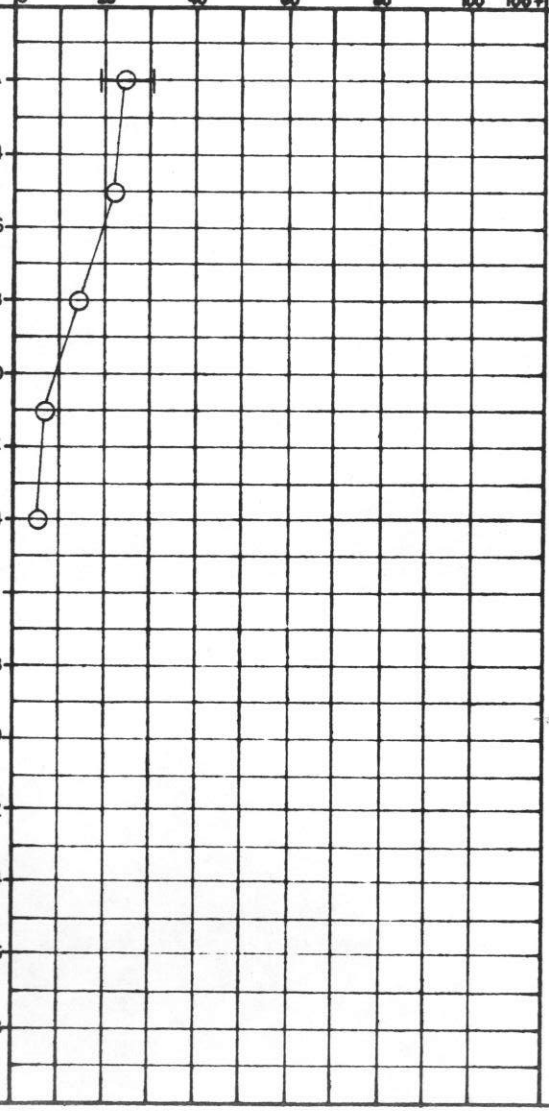
FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.
TECH. Sawchuk	RIG. Mayhew #2	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 5"	ELEV.

TEST HOLE 10

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		
2					Cl	CLAY - SANDY SILTY PEBBLES SHALE FRAGMENTS LOW - MED. PLASTIC		MODERATE TO LOW
8					Ci			ICE Vc - Vr Vx
10						10'		
12						SHALE & SILTSTONE SOFT HARD		FROZEN Nbn
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.	TEST HOLE 11
TECH. Sawchuk	RIG. Mayhew #2	SURFACE DRAINAGE. Good	VEGETATION. Spruce Max. 5"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1.5'		
2					Cl	CLAY - SANDY SILTY PEBBLES & SHALE FRAGMENTS	F	LOW ICE
4								
6					Ci	LOW - MED. PLASTIC		Vx
8						9'		
10						SHALE - SOFT TO HARD - SILTSTONE HARD LAYERED		FROZEN
12								
14								Nbn
16								
18								
20								
22						23'		
24						BOTTOM OF HOLE - 23'		
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

BORROW PIT 4

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 447 + 00	OFFSET.	TEST HOLE 12
TECH. Sawchuk	RIG. Mayhew #2	SURFACE DRAINAGE. Good	VEGETATION. Spruce Max. 6"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1'		LOW
2					Cl	CLAY - SANDY SILTY PEBBLES, SHALE FRAG. LOW PLASTIC 4'		ICE
4								
6						SHALE - SOFT TO HARD		Vx
8						SILTSTONE - HARD	F	
10						11'		HIGH
12						AS ABOVE BUT VERY HIGH ICE CONTENT		ICE
14						14'		Vs
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

BORROW PIT 5

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

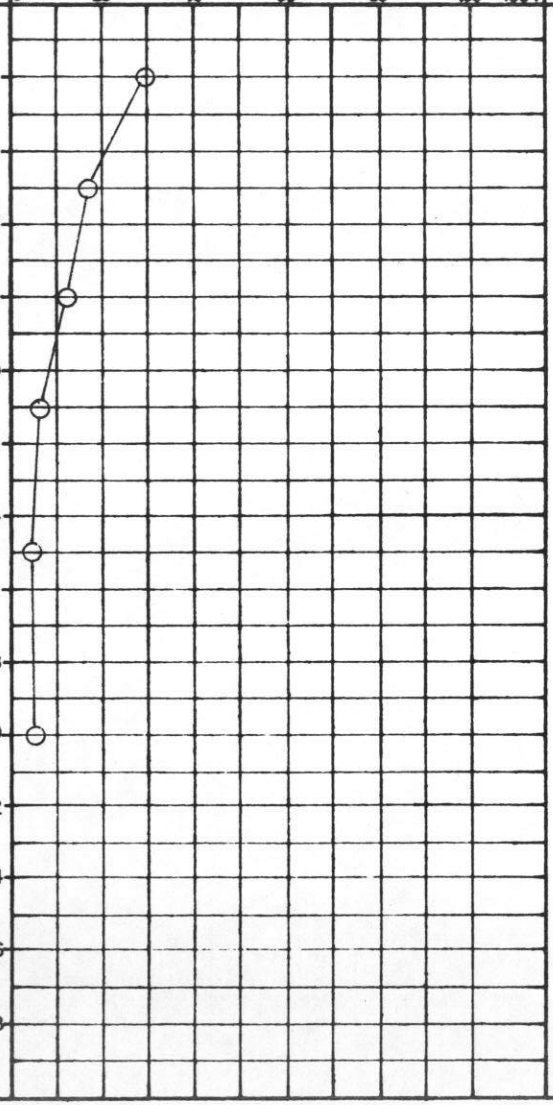
FIELD ENG.	DATE DRILLED. 25/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 432 + 50	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1½'		
2					Ci	CLAY - SANDY SILTY MED. PLASTIC		MODERATE ICE Vx Vc - Vr
8						8'	F	
10						SHALE - SILTSTONE HARD		FROZEN Nbn
22						22'		
						BOTTOM OF HOLE - 22'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		

DS-14-5-74 b

BORROW PIT 5

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 25/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 432 + 50	OFFSET.	TEST HOLE 2
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1½'		
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 7'		LOW ICE Vx
8						SHALE - SILTY	F	FROZEN Nbn
14						SHALE - SILTSTONE HARD 22'		
22						BOTTOM OF HOLE - 22'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL	RELATIVE THAWED MOISTURE CONTENT	REMARKS
	%	%	%	%		
14					DAMP	
16					DAMP	
20					DAMP	

DS-14-5-74 b

BORROW PIT 5

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 432 + 50	OFFSET.
TECH.	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 3

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1½'		
2						CLAY - SANDY SILTY - SHALE & SILTSTONE FRAGMENTS		Vs
4								
6					Ci	MED. PLASTIC	F	
8								Vx
10						10'		
12						SHALE & SILTSTONE - SOFT TO HARD LAYERED VERY HARD FRAGS. 22' - 30'		FROZEN Nbn
14								
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
				MOIST
				WET
				MOIST
				DAMP
				DAMP
				DAMP
				DAMP

REMARKS

BOTTOM OF HOLE - 30'

DS-14-5-74 b

BORROW PIT 5

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 432 + 50	OFFSET.
TECH. McINTOSH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 4

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1.7'		MODERATE ICE Vc - Vr					WET
2						CLAY - SANDY SILTY SHALE FRAGMENTS							DAMP
4													
6					Cl	MED. PLASTIC	F	FROZEN Nbn					DAMP
8													
10													DAMP
12						13'							
14						SHALE							DAMP
16													
18													
20													DAMP
22													
24													DAMP
26						BOTTOM OF HOLE - 25'							
28													

DS-14-5-74 b

BORROW PIT 5

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

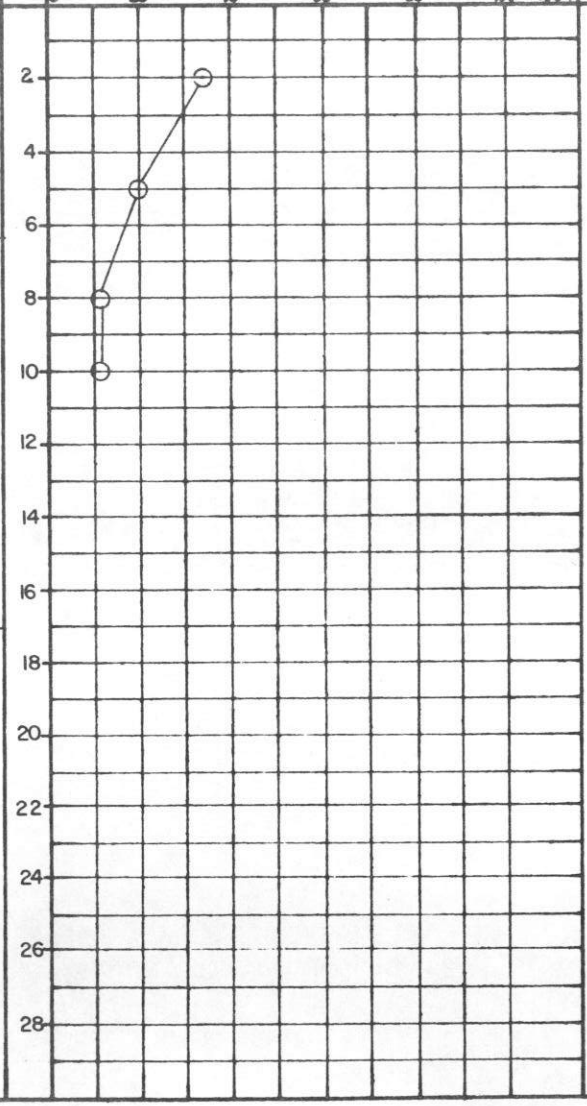
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 25/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 432 + 50	OFFSET.	TEST HOLE 5
TECH. McINTOSH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1'	F	MODERATE ICE Vc - Vr
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC		
4								
6						SHALE - SILTY		LOW ICE Vx
8								
10								
12						14'		
14						ALTERNATE LAYERS OF SOFT SHALE & SILTSTONE NATURAL JOINTS FROM 1½" - 4' THICK 17'		
16		ROCK CORE						
18						BOTTOM OF HOLE - 17'		
20								
22								
24								
26								
28								

DEPTH (FEET)



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				MOIST	
				DAMP	
				DAMP	

DS-14-5-74 b

BORROW PIT 5

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 144	CHAINAGE. 432 + 50	OFFSET.
TECH. Pronych	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 6

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		
2					Cl	CLAY - SANDY SILTY PEBBLES LOW - MED. PLASTIC		HIGH ICE Vs
4								
6					Ci	7'		LOW ICE Vx
8						SHALE - SOFT - SILT & SANDSTONE HARD LAYERED	F	FROZEN Nbn
10								
12								
14								
16								
18								
20								
22						22'		
24						BOTTOM OF HOLE - 22'		
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				MOIST	
				DAMP	
				DAMP	
				DAMP	

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.

DATE DRILLED. 27/11/73 | AIRPHOTO NO. A22970 - 100 | CHAINAGE. 849 + 00 | OFFSET.

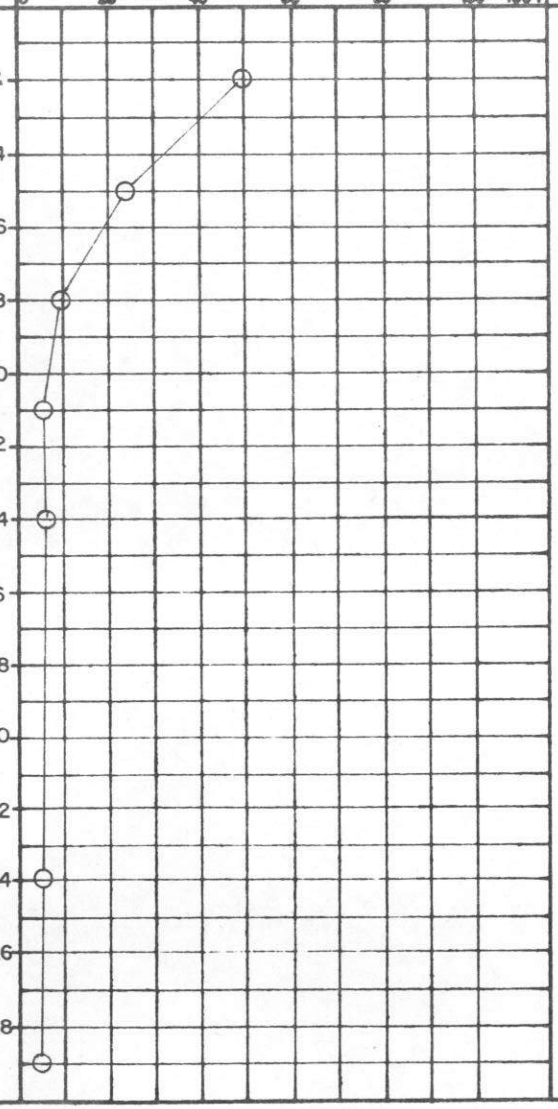
TECH. Sawchuk | RIG. Mayhew #1 | SURFACE DRAINAGE. Good | VEGETATION. Spruce Max. 4" | ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT .7		HIGH ICE Vs
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 6½'		3" ICE LENSE AT 1.5' Vc - Vr
8						SHALE - SILTY SOFT - MED. HARD 29'	F	FROZEN Nbn

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				SAT.	
				MOIST	
				DAMP	
				DAMP	
				DAMP	
				DAMP	
				DAMP	

BOTTOM OF HOLE - 29'

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 100	CHAINAGE. 849 + 00	OFFSET.	TEST HOLE 3
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 100+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.5								
2					Cl	CLAY - SANDY SILTY PEBBLES SHALE FRAGMENTS LOW - MED. PLASTIC		LOW ICE					MOIST	
4													DAMP	
6					Ci			Vx						
8						8'							HUMID	
10						SHALE - SOFT TO HARD	F						HUMID	
12						SILTSTONE - HARD		FROZEN						
14						ALTERNATING LAYERS FROM 14' - 25'		Nbn					HUMID	
16														
18														
20													HUMID	
22														
24													HUMID	
26														
28														

DS-14-5-74 b

BOTTOM OF HOLE - 26'

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 100	CHAINAGE. 849 + 00	OFFSET.	TEST HOLE 4
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 1.5		LOW
2					Cl	CLAY - SILTY SHALE FRAGMENTS LOW - MED. PLASTIC		ICE
4								Vx
6					Ci	7'		
8						SHALE - SOFT - HARD	F	FROZEN
10						SILTSTONE - HARD		Nbn
12						ALTERNATING LAYERS FROM 14' - 25'		
14								
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 160 180+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				MOIST	
				MOIST	
				DAMP	
				HUMID	
				HUMID	
				HUMID	
				HUMID	

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 100	CHAINAGE. 849 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 5

MILE

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1'								
2					Ci	CLAY - SANDY SILTY PEBBLES SHALE FRAGMENTS LOW - MED. PLASTIC		MODERATE ICE Vc - Vr					MOIST	
4													MOIST	
6					Cl	7'								
8						SHALE - SOFT - HARD							DAMP	
10							F						HUMID	
12						SILTSTONE - HARD								
14						ALTERNATING LAYERS 20' - 25'		FROZEN Nbn					HUMID	
16														
18														
20													HUMID	
22													HUMID	
24														
26														
28														

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 100	CHAINAGE. 849 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 6

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		HIGH					
2						CLAY - SILTY SHALE FRAGMENTS HARD MED. PLASTIC		TO MODERATE ICE					SAT.
4													
6					Ci		F	Vs					WET
8						8'		Vc - Vr					DAMP
10						SHALE MED. HARD TO HARD HARD LAYERS (SILTSTONE?) FROM 12' - 25'							
12													
14								FROZEN					
16								Nbn					
18													
20													HUMID
22													
24													
26													
28													

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 28/11/73	AIRPHOTO NO. A22970 - 100	CHAINAGE. 849 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 7

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1'	F	MODERATE ICE Vs					MOIST
2					Ci	CLAY - SANDY SILTY MED. PLASTIC							MOIST
4													
6								Vc - Vr					
8						8'							DAMP
10						SHALE - SILTY SOFT - MED. HARD		FROZEN Nbn					
12													
14						14'							
16						BOTTOM OF HOLE - 14'							
18													
20													
22													
24													
26													
28													

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.

DATE DRILLED. 28/11/73

AIRPHOTO NO. A22970 - 100

CHAINAGE. 849 + 00

OFFSET.

TECH. Baine

RIG. Mayhew #1

SURFACE DRAINAGE.

VEGETATION.

ELEV.

TEST HOLE 8

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC	F	MODERATE ICE Vc - Vr
8						8'		
10						SHALE		FROZEN Nbn
14						14'		
16						BOTTOM OF HOLE - 14'		

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				WET MOIST DAMP DAMP

DS-14-5-74 b

BORROW PIT 6

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED. 28/11/73	AIRPHOTO NO. A22970 - 100	CHAINAGE. 849 + 00	OFFSET.	TEST HOLE 9
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1'		MODERATE ICE					DAMP	
2						CLAY - SANDY SILTY SHALE FRAGMENTS FROM 5' MED. PLASTIC							MOIST	
4					Ci			Vc - Vr						
6						7'								
8						SHALE - SOFT TO HARD	F						WET	
10						HARDNESS INCREASING WITH DEPTH ALTERNATE SOFT & HARD LAYERS FROM 19' - 30' VERY HARD FROM 30' - 40' SILTSTONE		FROZEN Nbn					HUMID	
12														
14														
16													HUMID	
18														
20													HUMID	
22														
24														
26													HUMID	
28														
						BOTTOM OF HOLE - 40'							HUMID	

31'
36'
39'

HUMID

DS-14-5-74 b

BORROW PIT 7

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

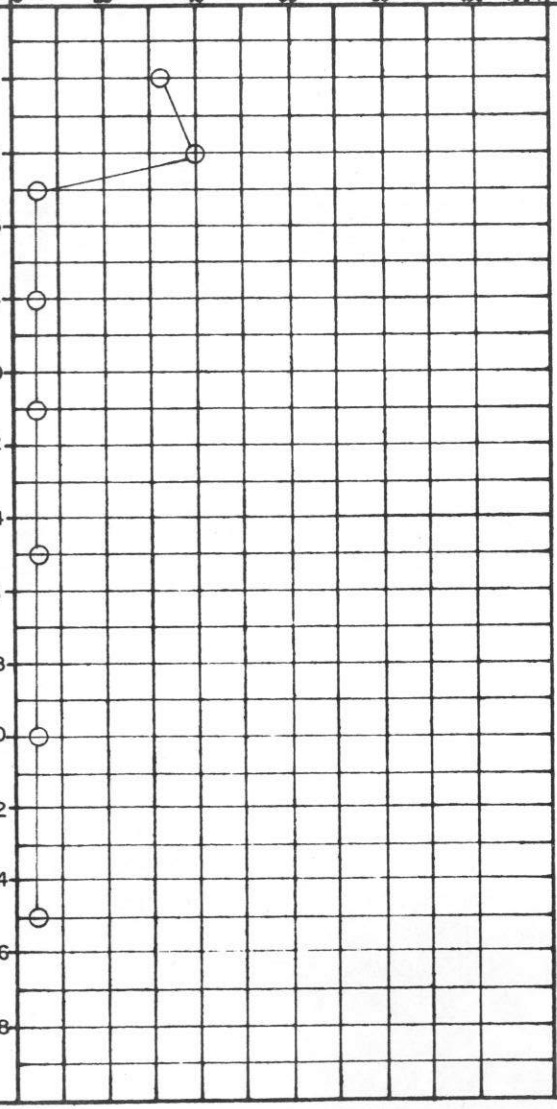
FIELD ENG. B.CONSTANT	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 582 + 00	OFFSET.
TECH. Baine	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		Vr - Vc
2					Ci	CLAY - SANDY SILTY MED. PLASTIC		MODERATE ICE
4						4'		
6						SHALE - SOFT - HARD		
8						SILTSTONE - HARD	F	
10								FROZEN
12								Nbn
14								
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
				DAMP	
				HUMID	
				HUMID	
				HUMID	
				HUMID	
				HUMID	

BOTTOM OF HOLE - 27'

DS-14-5-74 b

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 582 + 00	OFFSET.	TEST HOLE 2
TECH. McINTOSH	RIG. Mayhew #2	SURFACE DRAINAGE. Poor	VEGETATION. Spruce Max. 3"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	REMARKS
0					Pt	PEAT 8"								
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 4'		MODERATE ICE Vc - Vr	MOIST					
4														
6						SHALE - SOFT TO HARD			DAMP					
8								FROZEN	DAMP					
10						SILTSTONE - HARD	F	Nbn	DAMP					
12														
14									HUMID					
16														
18														
20									HUMID					
22														
24									HUMID					
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

DS-14-5-74 b

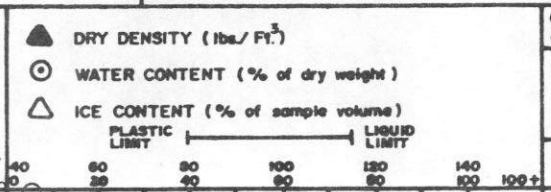
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG.	DATE DRILLED.	AIRPHOTO NO.	CHAINAGE.	OFFSET.	TEST HOLE	2
TECH.	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0						SHALE - SOFT - HARD	F	FROZEN Nbn					HUMID	
2						SILTSTONE - HARD								
4													HUMID	
6														
8													HUMID	
10						40'								
12						BOTTOM OF HOLE - 40'								
14														
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

BORROW PIT 7

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 582 + 00	OFFSET.
TECH. SAWCHUK	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 7"	ELEV.

TEST HOLE 3

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT .8'		LOW ICE					
2					Ci	CLAY - SILTY HARD SHALE FRAGMENTS 5'		Vx					DAMP
4													DAMP
6						SHALE - SILTSTONE?							
8						HARD	F						
10								FROZEN Nbn					HUMID
12													
14													HUMID
16													
18													
20													
22													
24													
26													HUMID
28													

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+

BOTTOM OF HOLE - 27'

DS-14-5-74 b

BORROW PIT 7

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 26/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 582 + 00	OFFSET.	
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	TEST HOLE 4 / MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 8"		
2						CLAY - SANDY SILTY HARD SHALE FRAGMENTS MED. PLASTIC		MODERATE ICE
4						4'		Vc - Vr
6						SHALE		
8						SOFT TO HARD	F	
10						SILTSTONE?		FROZEN
12								Nbn
14								
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	40	60	80	100	120	140	100+
	0	20	40	60	80	100	

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				WET DAMP HUMID Humid Humid Humid

REMARKS

BOTTOM OF HOLE - 29'

DS-14-5-74 b

BORROW PIT 7

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED.	AIRPHOTO NO. A22971 - 21	CHAINAGE. 582 + 00	OFFSET.	TEST HOLE 5
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 8"								
2						CLAY - SILTY SHALE FRAGMENTS INCREASINGS WITH DEPTH - HARD MED. PLASTIC 5'							DAMP	
4													DAMP	
6						SHALE								
8						- ALTERNATE LAYERS OF SOFT & HARD FROM 19' - 29' SOFT TO 19'							HUMID	
10							F	FROZEN						
12								Nbn						
14														
16														
18														
20														
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+

BOTTOM OF HOLE - 29'

DS-14-5-74 b

BORROW PIT 8

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 626 + 00	OFFSET.	TEST HOLE 1
TECH. McINTOSH	RIG. Mayhew #2	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Oh Pt B6	PEAT 2'		ICE LENSES Vs					DAMP	
4					Ci	CLAY - SANDY SILTY PEBBLES							DAMP	
6						SHALE & SILTY CLAY 7'	F						DAMP	
8						SHALE - HARD		FROZEN Nbn					DAMP	
12						WATER IN HOLE AT 15' 15'								
16						BOTTOM OF HOLE - 15'								

DS-14-5-74 b

BORROW PIT 8

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 626 + 00	OFFSET.
TECH. McINTOSH	RIG. Mayhew #2	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 5"	ELEV.

TEST HOLE 2

MILE

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1.5									
2					Ci	CLAY - SANDY SILTY 40% SHALE FRAG. 4'		LOW ICE Vx	2					DAMP	
4									4						
6						SHALE - HARD	F	FROZEN	6					HUMID	
8									8					HUMID	
10								Nbn	10						
12									12					HUMID	
14									14						
16						MED. HARD WATER AT 15' 20'		AT 15' WATER IN HOLE	16					SAT.	
18									18						
20									20						
22						BOTTOM OF HOLE - 20'			22						
24									24						
26									26						
28									28						

DS-14-5-74 b

BORROW PIT 8

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 626 + 00	OFFSET.	TEST HOLE 3
TECH. SAWCHUK	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 3"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 8"								
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS 3'		LOW ICE Vx					MOIST	
4						SHALE							HUMID	
6						- MED. HARD TO HARD								
8														
10							F	FROZEN Nbn					HUMID	
12														
14														
16													HUMID	
18						19½'								
20						BOTTOM OF HOLE - 19½'								
22														
24														
26														
28														

▲ DRY DENSITY (lbs./Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 60 20 80 40 100 60 120 80 140 100 100+

DS-14-5-74 b

BORROW PIT 8

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 626 + 00	OFFSET.
TECH. McINTOSH	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 3"	ELEV.

TEST HOLE 4

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1.7'								
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC		LOW ICE Vx					MOIST	
4						5'								
6						SHALE HARD		FROZEN Nbn					DAMP	
8													DAMP	
10							F							
12													HUMID	
14			CORE			SOFT SHALE HARD SHALE SILTSTONE JOINTS ½" - 1½" apart								
16													DAMP	
18						SHALE HARD		Nbn						
20														
22							T							
24														
26													HUMID	
28														

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

BOTTOM OF HOLE - 40'

35'
39'

HUMID

DS-14-5-74 b

BORROW PIT 8

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 626 + 00	OFFSET.	TEST HOLE 5
TECH. SAWCHUK	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 5"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		LOW ICE
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS 3'		Vx
4						SHALE SOFT WITH OCCASSIONAL HARD LAYER TO 18' 3" - 4" 18' - HARD - SILTSTONE?	F	FROZEN Nbn
8								
10								
12								
14								
16								
18						18½'		
20						BOTTOM OF HOLE - 18½		
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				MOIST	
				HUMID	
				HUMID	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 8

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

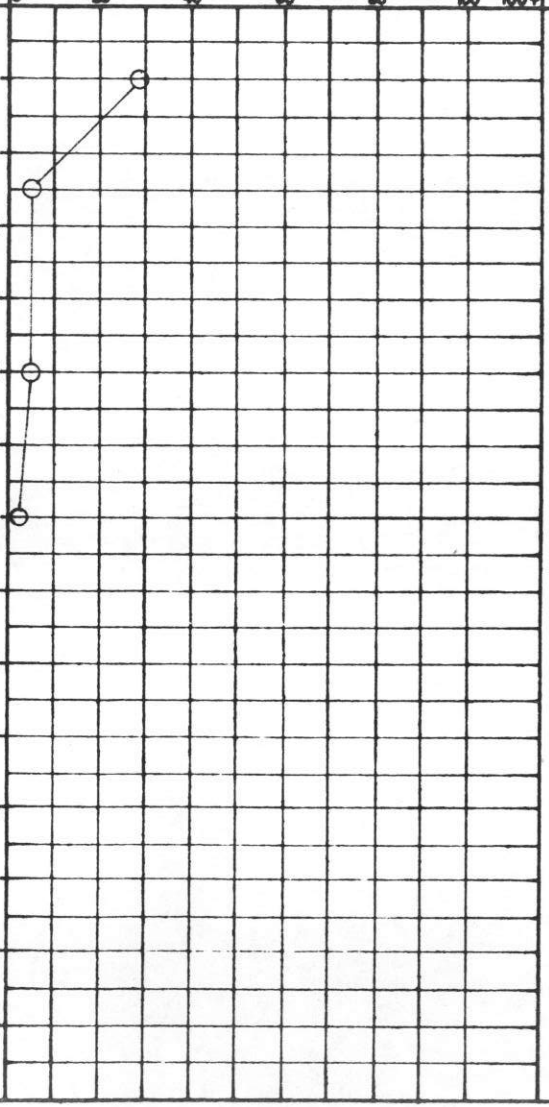
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22971 - 21	CHAINAGE. 626 + 00	OFFSET.	TEST HOLE 6
TECH. SAWCHUK	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 5"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		MODERATE ICE
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 4'		Vc Vr
4						SHALE SOFT TO HARD		
6								
8							F	
10								FROZEN Nbn
12								
14								
16						VERY HARD FROM 17'-18' SILTSTONE 17'		
18						BOTTOM OF HOLE - 17'		
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					WET	
4					DAMP	
6						
8						
10					HUMID	
12						
14					Humid	
16						
18						
20						
22						
24						
26						
28						

DS-14-5-74 b

BORROW PIT 9

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

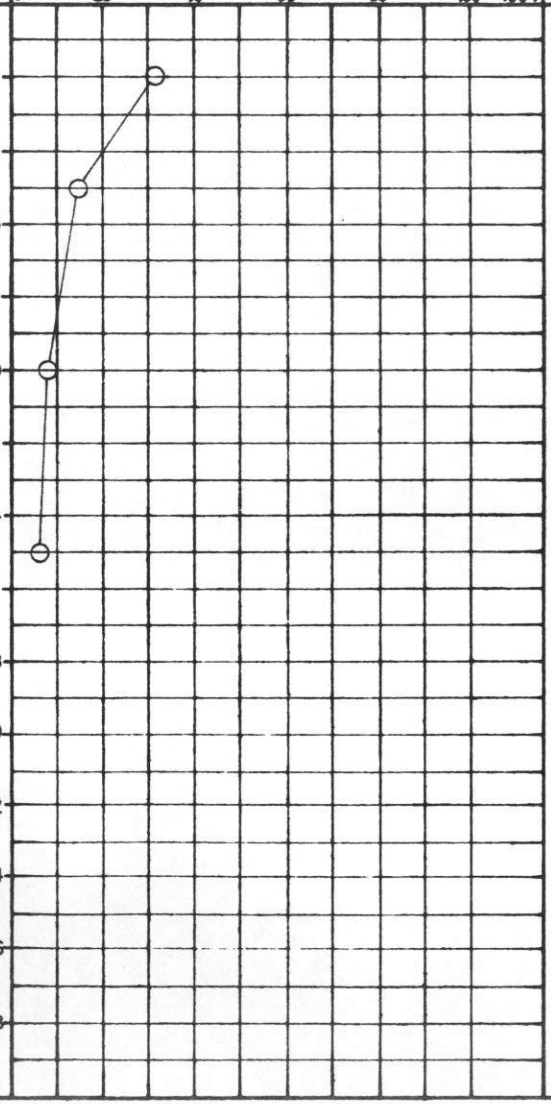
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 217	CHAINAGE. 677 + 00	OFFSET.	TEST HOLE 1
TECH. SAWCHUK	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce Max. 3"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Oh	ORGANIC 8"		Vs FROM 16" TO 20" ICE LAYER HIGH ICE
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 4½'		
4								
6						SHALE		
8						ALTERNATE SOFT & HARD LAYERS		
10							F	FROZEN
12								Nbn
14								
16								
18						VERY HARD SILTSTONE? 18½'		
20						BOTTOM OF HOLE 18½'		
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				WET	
				DAMP	
				DAMP	
				MOIST	

DS-14-5-74 b

BORROW PIT 9

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT | DATE DRILLED. 27/11/73 | AIRPHOTO NO. A22970 - 217 | CHAINAGE. 677 + 00 | OFFSET.

TECH. SAWCHUK | RIG. Mayhew #1 | SURFACE DRAINAGE. Fair | VEGETATION. Spruce Max. 3" | ELEV.

TEST HOLE 2

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT 8"		
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 5½'		MODERATE ICE HIGH ICE Vs Vc - Vr
8						SHALE SOFT TO 13' 13' - 18' HARD 18'	F	FROZEN Nbn
18						BOTTOM OF HOLE - 18'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					SAT.	
6					MOIST	
10					DAMP	
14					HUMID	

DS-14-5-74 b

BORROW PIT 9

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 217	CHAINAGE. 677 + 00	OFFSET.
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 3

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 8"		HIGH ICE						
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC 3'		Vs 6" ICE LENSE					WET	
4														
6						SHALE							DAMP	
8						SOFT TO MED. HARD TO 24'								
10						HARD AT 24'							DAMP	
12						SILTSTONE?	F							
14								FROZEN						
16								Nbn						
18														
20													HUMID	
22														
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 100+

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 9

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 27/11/73	AIRPHOTO NO. A22970 - 217	CHAINAGE. 677 + 00	OFFSET.	TEST HOLE 4
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION. Spruce Max. 3"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		6" ICE LENSE HIGH ICE Vs
2					Ci	CLAY - SANDY SILTY MED. PLASTIC 4'		
4						SHALE ALTERNATE LAYERS OF SOFT & HARD	F	FROZEN Nbn
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				SAT.	
				DAMP	
				DAMP	
				HUMID	
				HUMID	
				HUMID	
				HUMID	

BOTTOM OF HOLE - 31½'

DS-14-5-74 b

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 24/11/73	AIRPHOTO NO. A22969 - 42	CHAINAGE. 1146 + 00	OFFSET.	TEST HOLE 1
TECH. BAINE	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT .5'		LOW						
2					Ci	CLAY - SANDY SILTY MED. PLASTIC	F	Vx					DAMP	
4						4'		ICE						
						SHALE - SOFT - HARD								
6						ICE		ICE						
8						SHALE - SOFT - HARD	F	MODERATE					WET	
10								ICE					WET	
12													SAT.	
14													WET	
16														
18								Vc - Vr						
20													SAT.	
22													WET	
24														
						25'								
26						ICE 26'		ICE					SAT.	
					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS		MODERATE Vc - Vr ICE						
28						28'								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

BOTTOM OF HOLE - 28'

DS-14-5-74 b

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969 - 42	CHAINAGE. 1146 + 00	OFFSET.
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION. Spruce	ELEV.

TEST HOLE 2

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 8"				
2					Ci	CLAY - SANDY SILTY SHALE FRAG. 4'		LOW ICE Vx	MOIST	
4									MOIST	
6						SHALE - HARD 7'				
8					Ci	CLAY - SANDY SILTY 5 - 15% SHALE FRAGMENTS MED. PLASTIC 14½	F	MODERATE ICE Vc - Vr	WET	
10										
12										
14									FREE WATER	
16						ICE 20½'		ICE		
18										
20					Ci	CLAY - SILTY SANDY SHALE FRAGMENTS 5 - 10% 24'		MODERATE ICE Vc - Vr	MOIST	
22										
24										
26										
28										

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 109+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DS-14-5-74 b

BOTTOM OF HOLE - 24'

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969-42	CHAINAGE. 1146+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 3

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		
						12"		
2						ICE — 16"		ICE
4					CL	CLAY -Sandy Silty Pebbles Low-med. plastic		Moderate Ice Vc - Vr
6					CI		F	
8						ICE		ICE
10								
12						14'		
14						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	Hole in Bag
				Moist	Hole in Bag

DS-14-5-74 b

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969 - 42	CHAINAGE. 1146 + 00	OFFSET.
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION. Spruce	ELEV.

TEST HOLE 4

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 8"		
2						CLAY - SANDY SILTY 5 - 50% SHALE FRAGMENTS MED. PLASTIC		HIGH &
4								MODERATE
6					Ci		F	-- Vs --
8								ICE
10								
12								Vc - Vr
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 60 20 80 40 100 60 120 80 140 100 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				SAT.	
				SAT.	
				MOIST	

DS-14-5-74 b

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

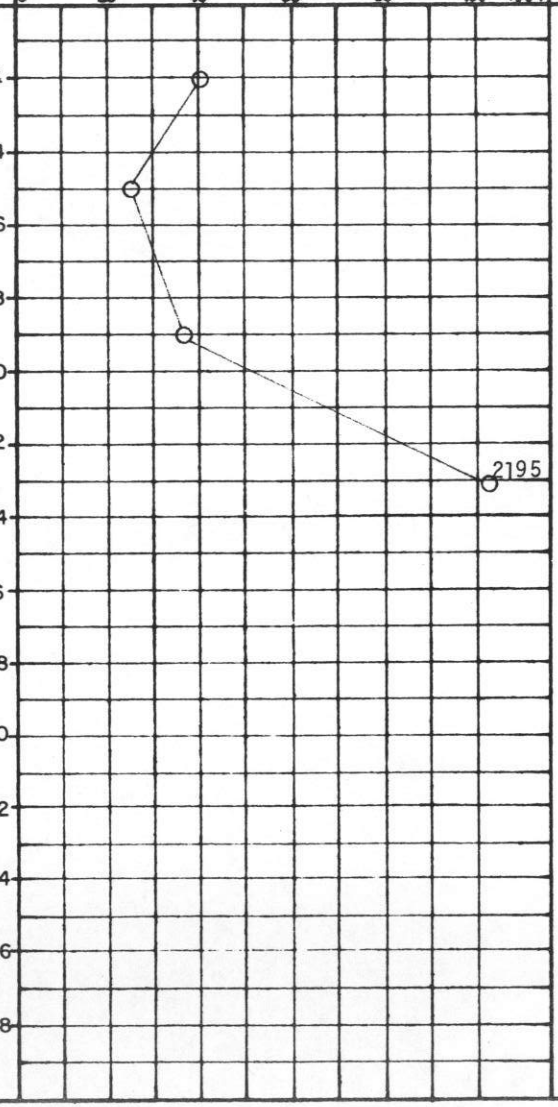
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969-42	CHAINAGE. 1146+00	OFFSET.	TEST HOLE 5
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 8"		Moderate To High Ice Vc - Vr Vs					Wet	Hole In Bag
2					CI	CLAY -Sandy Silty Organic to 4' Pebbles Med. plastic	F						Wet	
4														
6													Free Water	
8														
10														
12						ICE 14'		ICE					Water	
14						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969 - 42	CHAINAGE. 1146 + 00	OFFSET.
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE. Fair	VEGETATION. Spruce	ELEV.

TEST HOLE 6

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Pt	PEAT 9"			2					SAT.
4						CLAY - SANDY SILTY 5 - 15% SHALE FRAGMENTS MED. PLASTIC	F	HIGH ICE Vs	4					FREE WATER
6									6					
8					Ci			MODERATE ICE Vc - Vr	8					MOIST
10									10					
12									12					MOIST
14						14'			14					
16						BOTTOM OF HOLE - 14'			16					
18									18					
20									20					
22									22					
24									24					
26									26					
28									28					

DS-14-5-74 b

BORROW PIT 10

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 30/11/73 | AIRPHOTO NO. A22969-42 | CHAINAGE. 1146+00 | OFFSET.

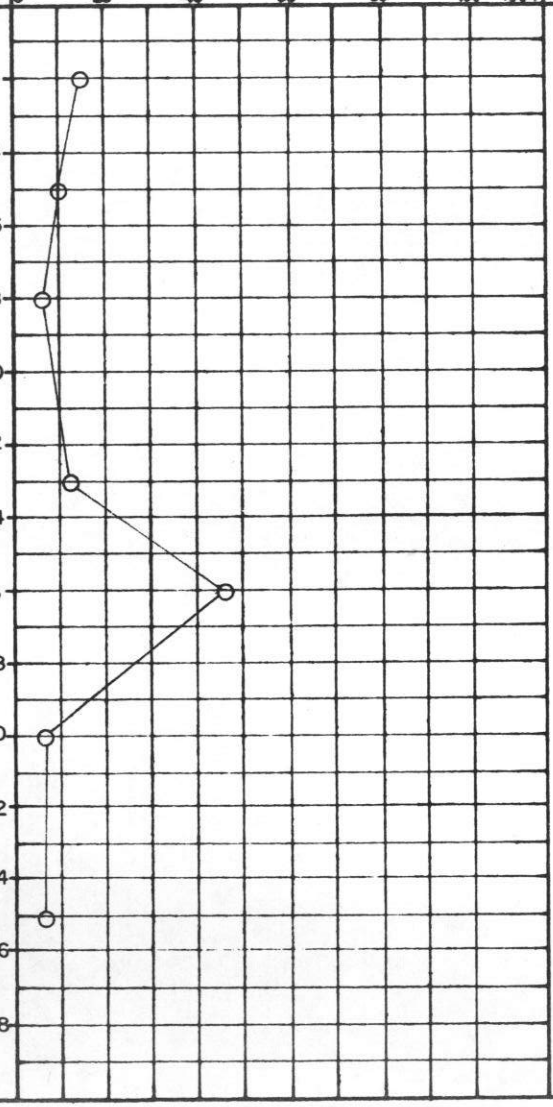
TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. GOOD - RIDGE | VEGETATION. SPRUCE | ELEV.

TEST HOLE 7

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		Low
2						CLAY-SHALE Fragments — 3'		To
4						SHALE -Soft-medium		Nil
6								Ice
8							F	
10								Vx
12						SILTSTONE-SANDSTONE SHALE		Nbn
14						— 14½'		
16						ICE & SHALE — 17'		ICE SHALE
18						As Above		Vx
20						Med. hard - hard	F F	Nbn
22								
24								
26						ICE		
28						— 29'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
				Damp	
				Damp	
				Humid	
				Wet	
				Free Water	
				Damp	
				Damp	

BOTTOM OF HOLE - 29'

DS-14-5-74 b

BORROW PIT 11

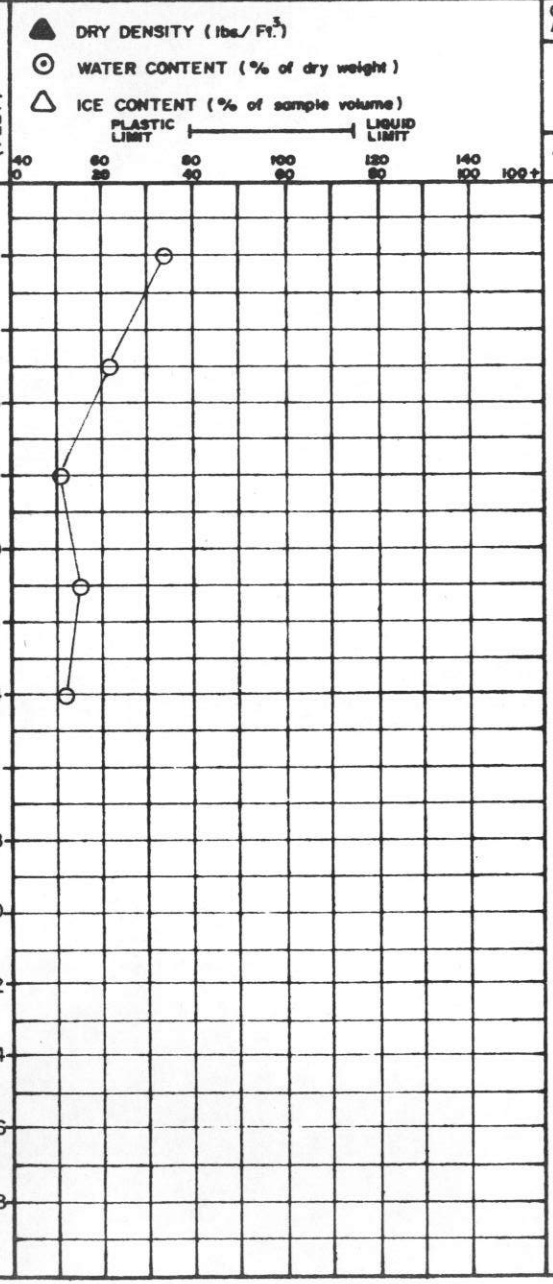
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 1
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR - GOOD	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 8"		Moderate
2						CLAY		Ice
4						-Sandy Silty Pebbles Organic to 4' Low plastic		Vc - Vr
6							F	
8					CL			Low
10								Ice
12						Shale fragments		Vx
14						— 14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Sat.	
				Damp	Hole In Bag
				Moist	
				Damp	

DS-14-5-74 b

BORROW PIT 11

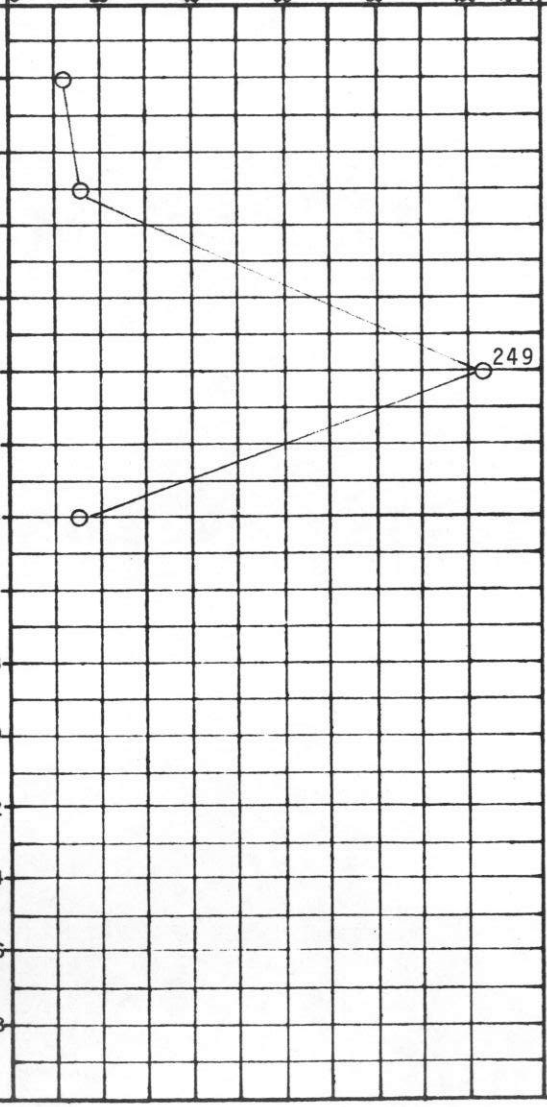
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 2
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE - POPLAR	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 8"		Low					Damp	
2					CL	CLAY -Sandy Silty Shale fragments Low plastic	F	Ice					Wet	
4														
6								Vx						
8						ICE & CLAY		ICE-CL					Free Water	
10														
12					CL	As Above — 14'		Vx					Wet	
14						BOTTOM OF HOLE - 14'								
16														
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

BORROW PIT 11

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A22969 - 44	CHAINAGE. 1066 + 00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. Mayhew #1	SURFACE DRAINAGE. Good	VEGETATION. Spruce & Birch	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 8"								
2						CLAY - SANDY SILTY SHALE FRAGMENTS		LOW					DAMP	
4						30%		ICE					MOIST	
6														
8						30%	F						MOIST	
10														
12					Ci	80%		Vx					MOIST	
14						60%							DAMP	
16														
18														
20						ICE		ICE						
22						50%		MODERATE ICE					SAT.	
24														
26								Vc - Vr						
28						BOTTOM OF HOLE - 27'								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

DS-14-5-74 b

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. | AIRPHOTO NO. A22968 - 190 | CHAINAGE. 1196 + 00 | OFFSET.

TECH. BAINE | RIG. Mayhew #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

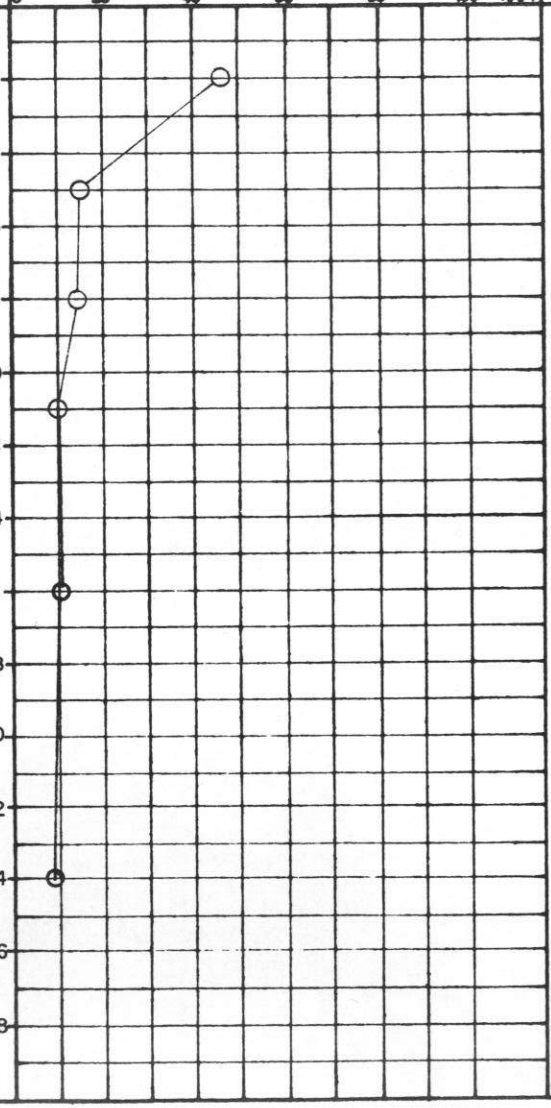
TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT ½'		HIGH ICE
2					Cl	CLAY - SANDY SILTY SHALE FRAGMENTS LOW TO MED. PLASTIC FREE H_2O		Vs
4					Ci	5'		
6						SHALE		LOW ICE
8						- SOFT FROM 5' - 8' HARD FROM 8'		Vx
10							F	FROZEN
12								Nbn
14								
16								
18								
20								
22								
24								
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				FREE WATER
				MOIST
				MOIST
				DAMP
				Moist
				DAMP

REMARKS

DS-14-5-74 b

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 29/11/73 | AIRPHOTO NO. A22968 - 190 | CHAINAGE. 1196 + 00 | OFFSET.

TECH. BAINE | RIG. Mayhew #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 2

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1'		Vs					
2					Ci	CLAY - SANDY SILTY SHALE FRAGMENTS INCREASING WITH DEPTH MED. PLASTIC 7'		MODERATE ICE Vc - Vx					SAT.
4													MOIST
6								Low ICE Vx					
8													WET
10						SHALE - SILTY SOFT TO MED. HARD	F						MOIST
12													
14													MOIST
16													DAMP
18								FROZEN Nbn					
20													DAMP
22													
24													
26						BOTTOM OF HOLE - 25'							
28													

DS-14-5-74 b

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A22968 - 190	CHAINAGE. 1196 + 00	OFFSET.
TECH. BAINE	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 3

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT ½'		
2					Ci	CLAY - SANDY SILTY 2'		
						SHALE		
4						ALTERNATE LAYERS OF SOFT & HARD		
6								
8								FROZEN
10							F	TO
12								LOW ICE
14								Nbn
16								Vx
18								
20								
22								
24								
26								
28								
						CLAY SILTY		Vc - Vr
						SHALE FRAGMENTS AT 35'		
						BOTTOM OF HOLE - 40'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 160+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				DAMP
				WET
				MOIST
				WET
				DAMP
				DAMP
				DAMP
				MOIST
				WET

DS-14-5-74 b

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A22968 - 190	CHAINAGE. 1196 + 00	OFFSET.
TECH. BAINE	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 4

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT 1'			
2					Ci	CLAY - SILTY		Vx	MOIST
4						3' SHALE			DAMP
6						SOFT TO HARD		LOW ICE	
8									MOIST
10							F	Vx	
12									WET
14									
16									DAMP
18									
20									DAMP
22									
24						25'			FREE WATER
26						CLAY - SANDY SILTY FREE H_2O		HIGH ICE	
28						SHALE $\bar{=}$ HARD		Vs	

DRY DENSITY (lbs./Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DS-14-5-74 b

BOTTOM OF HOLE - 25'

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A22968 - 190	CHAINAGE. 1196 + 00	OFFSET.
TECH. BAINE	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 5

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT 1'		
2						CLAY - SANDY SILTY SOME PEBBLES & SHALE FRAGMENTS		MODERATE
4								
6						MED. PLASTIC		ICE
8					Ci			Vc - Vr
10							F	
12								
14								
16								HIGH ICE
18								
20								Vs
22								
24								
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					MOIST	
					WET	
					WET	
					FREE WATER	
					FREE WATER	

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B.CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A22968 - 190	CHAINAGE. 1196 + 00	OFFSET.	TEST HOLE 6
TECH. BAINE	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT 1'		HIGH ICE Vs					FREE WATER	
2						CLAY								
4						- SANDY SILTY SHALE FRAGMENTS INCREASING WITH DEPTH MED. PLASTIC		MODERATE TO LOW ICE					WET	
6							Ti							
8					Ci								MOIST	
10													MOIST	
12								Vc - Vr Vx						
14						15'								
16						ICE		ICE						
18														
20														
22														
24														
26														
28														

BOTTOM OF HOLE - 25'

DS-14-5-74 b

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED.	AIRPHOTO NO. A22968 - 190	CHAINAGE. 1196 + 00	OFFSET.	TEST HOLE 7
TECH. BAINE	RIG. Mayhew #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140
0 20 40 60 80 100 100+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT ½'								
2						CLAY - SANDY SILTY SHALE FRAGMENTS MED. PLASTIC							DAMP	
4													MOIST	
6					Ci			LOW ICE						
8					Cl	LOW PLASTIC	TF	Vx					MOIST	
10														
12													DAMP	
14														
16													DAMP	
18														
20						20'							MOIST	
						SHALE - SILTY SOFT TO HARD		FROZEN Nbn					DAMP	
22														
24														
26														
28														

DS-14-5-74 b

BOTTOM OF HOLE - 20'

BORROW PIT 12

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION -D-

FIELD ENG. N. BURGESS | DATE DRILLED. 30/11/73 | AIRPHOTO NO. | CHAINAGE. | OFFSET.

TECH. BAINE | RIG. MAYHEW #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 8

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT		High Ice					Free Water	
4						4'								
6						Clay - Silty - Sandy - Pebbles		VS					Sat.	
8					Cl	Med. Plastic	F							
10														Hole in Bag
12														
14														
16						Ice		Ice						
18														
20						20'								
22						BOTTOM OF HOLE 20'								
24														
26														
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

8074

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	TEST HOLE 1
TECH.	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT .7'		Moderate	
2						CLAY -Sandy Silty Med. plastic		Ice	Free Water
4					CI				Wet
6								Vc - Vr	
8							F		Wet
10						11'			Moist
12						SHALE -Silty Hard			
14									Humid
16									
18								Frozen	
20								Nbn	
22									Humid
24									Humid
26						25' BOTTOM OF HOLE 25'			
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 0 20 40 60 80 100 100+

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 29/11/73 | AIRPHOTO NO. A 22968-121 | CHAINAGE. 1355+00 | OFFSET.

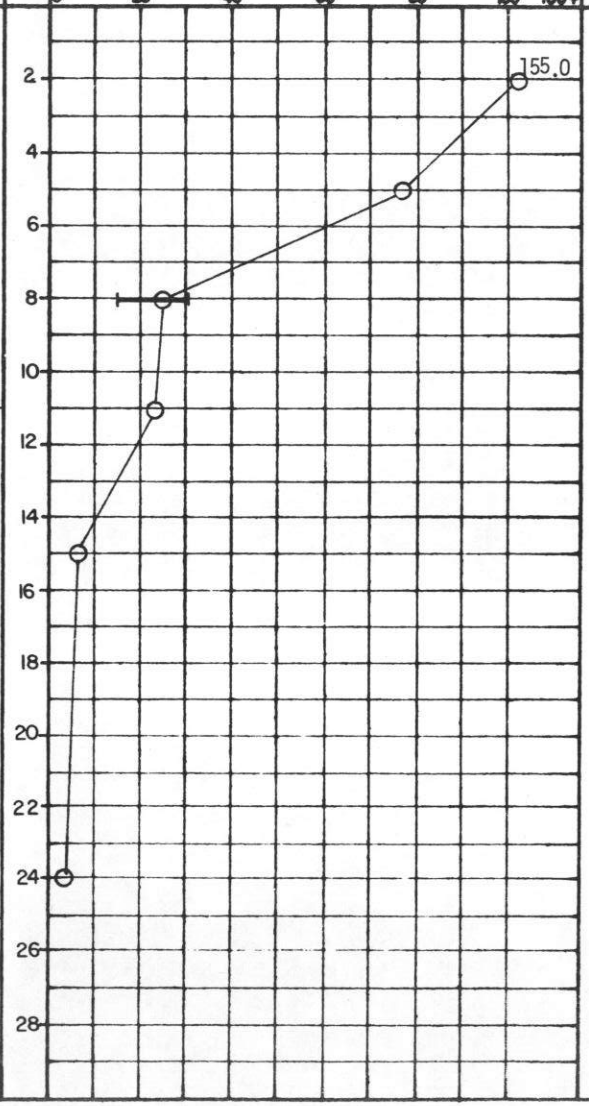
TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 2

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						.6'		High
2						CLAY		Ice
4						-Sandy Silty Pebbles Shale fragments 8'-10'		
6					CI	Med. plastic		Vs
8							F	
10								
12								
14								
						15'		
16						SHALE		Frozen
18						-Silty Med. hard to hard		
20								Nbn
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Sat.	
				Moist	
				Damp	
				HUMID	

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

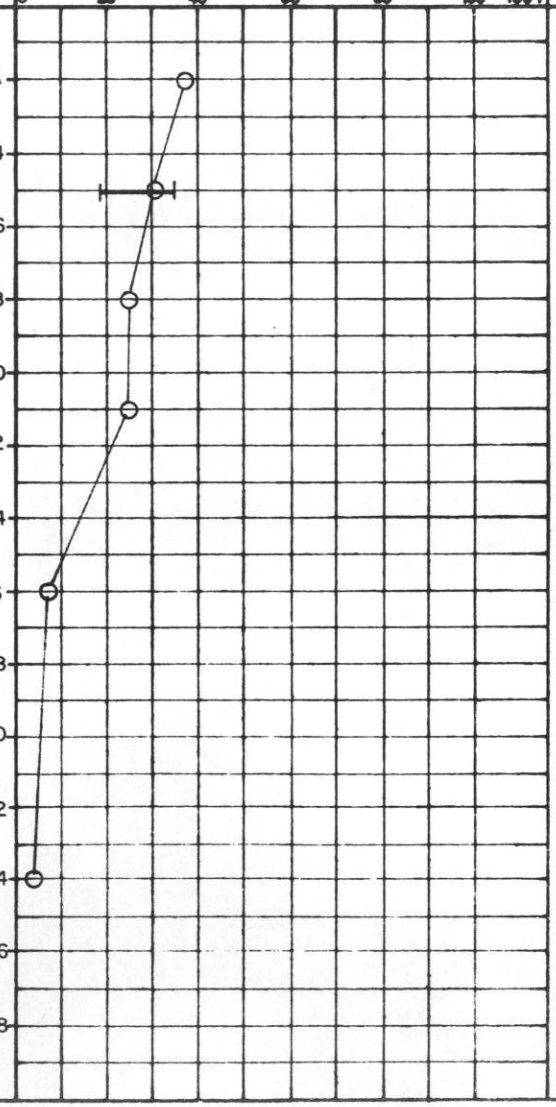
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	TEST HOLE 3
					MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .5'		
2						CLAY -Sandy Silty Pebbles Med. plastic		Moderate Ice
8					CI		F	Vc - Vr
15'								
16						SHALE -Silty		Frozen Nbn
25'								
26						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Wet	
				Moist	
				DAMP	
				DAMP	

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	TEST HOLE 4
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — .5'		Moderate Ice
2						CLAY		Vc - Vr
4						-Sandy		
6						Silty	F	Vs
8					CI	Shale fragments		High
10						Med. plastic		Ice
12						Boulders at 9' — 11'		
14						SHALE		Frozen
16						-Silty		Nbn
18								
20								
22								
24								
26						BOTTOM OF HOLE - 25' — 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160+
2									
4									
6									
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT	REMARKS
Damp	
Free Water	
Sat.	
DAMP	
DAMP	
Humid	

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	TEST HOLE 5
TECH.	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3}) ▲ — WATER CONTENT (% of dry weight) ⊙ — ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT ½'		High Ice Vs					Sat.	
4						CLAY -Sandy, silty Shale fragments Med. plastic Boulders & cobbles at 11'		Moderate Ice					Moist	
8					CI		F						Wet	
12													Wet	
16								Vc - Vr					Sat.	
20													Moist	
24													Moist	
28													Moist	
32						32'							Moist	
36						SHALE -Soft to med. hard		Frozen Nbn					Humid	
40						40'							Humid	
44						BOTTOM OF HOLE - 40'								
48														
52														
56														

DS-14-5-74 a

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 29/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.

TEST HOLE 6

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — .8'			
2					CI	CLAY -Sandy Silty Med-high plastic		Moderate Ice	Wet
4									Wet
6									
8								Vc - Vr	Moist
10						— 11'			Damp
12						SHALE -Med. to hard	F		
14								Frozen	Humid
16									
18								Nbn	
20									Humid
22									
24						— 25'			Humid
26						BOTTOM OF HOLE - 25'			
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 7

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT — 1'							Free Water
4					Cl	CLAY -Silty, med plastic Shale fragments Increasing with depth		High Ice Vs					Free Water
8						— 9'							Moist
12						SHALE -Soft & hard Siltstone		Frozen					Damp
16						— 14'							Humid
20						Core Sample Very little return Siltstone	TT	Nbn					Damp
24						— 24'							Humid
28						AS ABOVE							
32													HUMID
36													HUMID
40						— 41'							
44						BOTTOM OF HOLE - 41'							
48													
52													
56													

DS-14-5-74 a

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 30/11/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	TEST HOLE 8
					MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		High Ice					Free Water	
2						CLAY -Sandy Silty Pebbles Med. plastic								
4								Vs					Free Water	
6					CI		F							
8								Moderate Ice					Moist	
10								Vc - Vr					Moist	
12						— 13'								
14						SHALE -Silty Med. hard							Damp	
16														
18								Frozen						
20								Nbn						
22													Humid	
24						— 25'								
26						BOTTOM OF HOLE - 25'								
28														

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

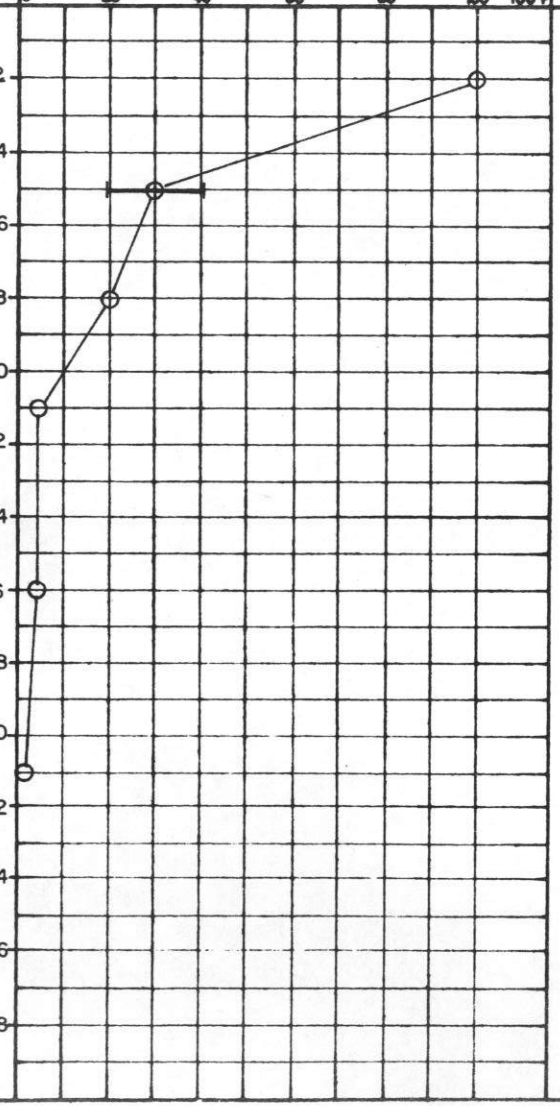
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	TEST HOLE 9
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		
2					CI	CLAY -Sandy Silty Pebbles Shale fragments Med. plastic	F	High Ice Vs Low & Moderate Vx Vc - Vr Ice
10						— 10½'		
12						SHALE -Med. hard to hard		Frozen Nbn
25						— 25'		
26						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Moist	
				Humid	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

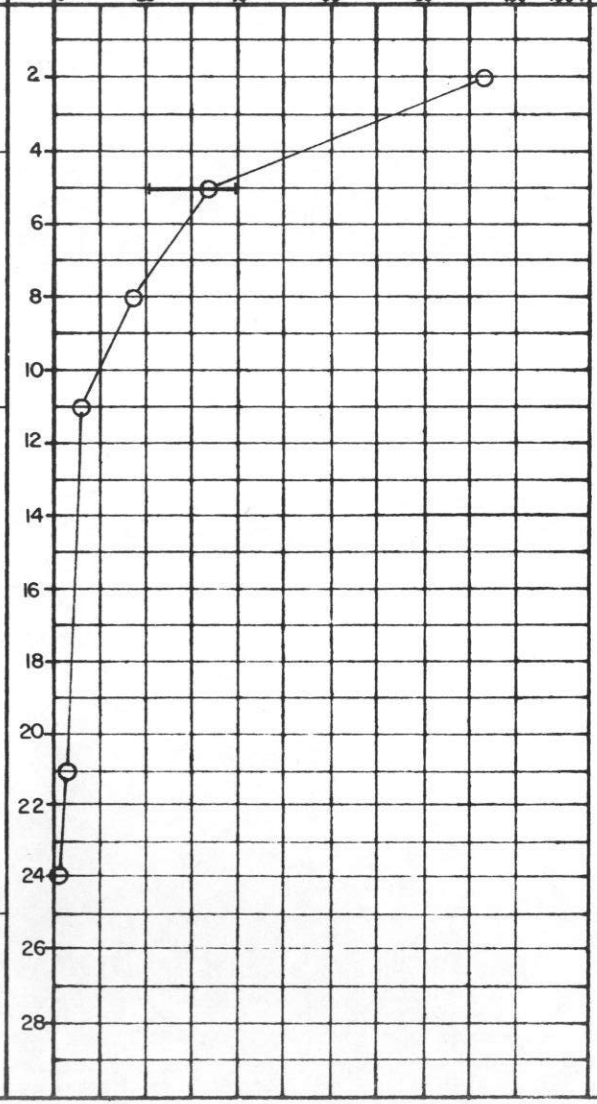
FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22968-121 | CHAINAGE. 1355+00 | OFFSET.

TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 10 | MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High Ice Vs
2					CI	CLAY -Sandy Silty Shale fragments Med. plastic		Moderate Ice Vc - Vr
10						— 10'	F	
12						SHALE -Silty		Frozen Nbn
25						— 25'		
26						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Moist	
				Humid	
				HUMID	
				HUMID	

DS-14-5-74 b

BORROW PIT 13

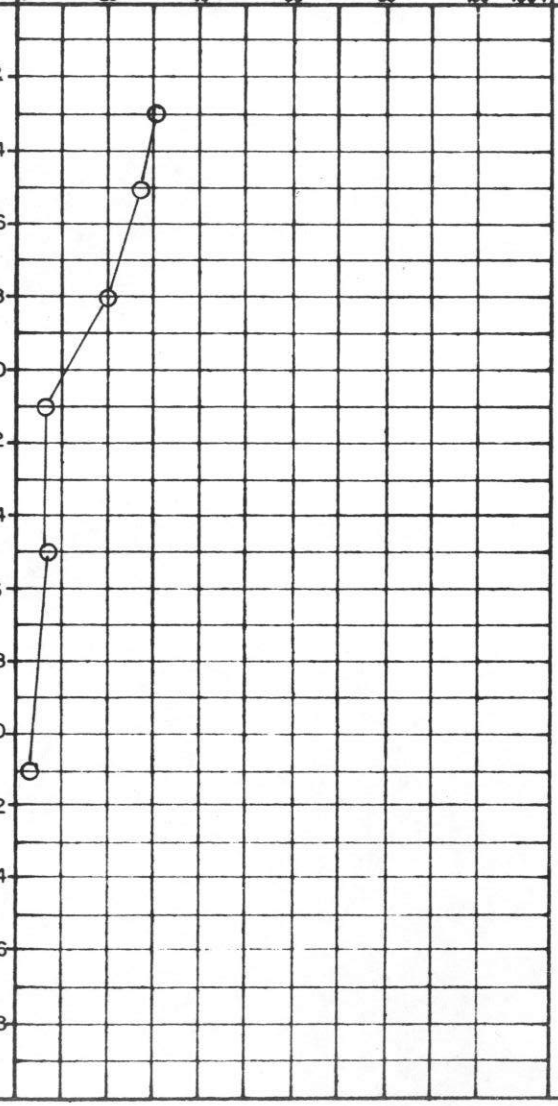
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	TEST HOLE 11
					MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High Ice
2						CLAY -Sandy Silty Shale fragments Med. plastic		Vs
4								
6					CI			Moderate Ice
8								
10						— 10'		Vc - Vr
12						SHALE -Soft-med. hard	F	
14								
16								Frozen
18								Nbn
20								
22								
24						— 25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Wet	
				Moist	
				Damp	
				Damp	
				Humid	

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

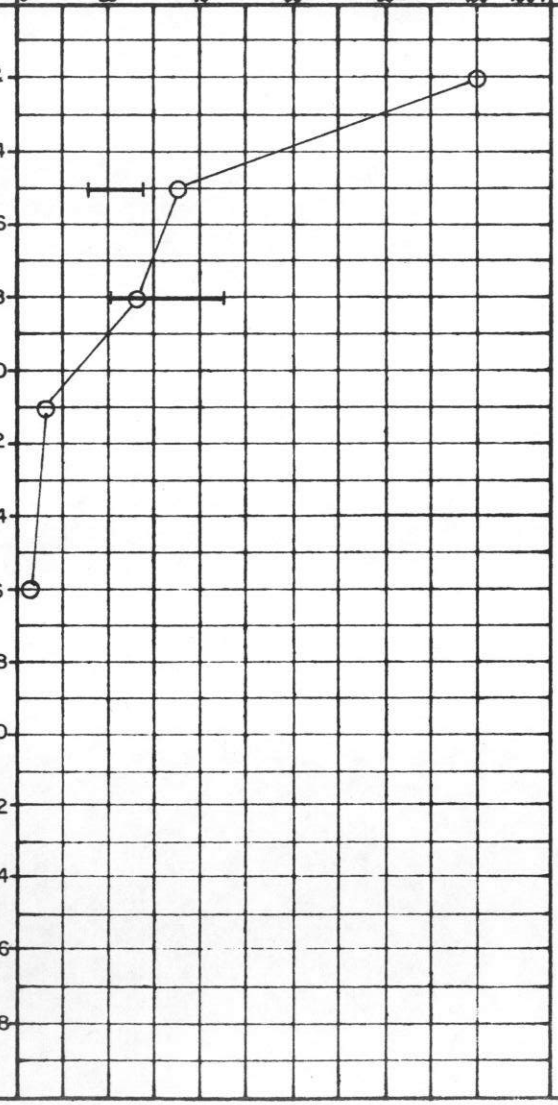
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22968-121	CHAINAGE. 1355+00	OFFSET.	
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	TEST HOLE 12 / MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High Ice Vs
2					CL	CLAY -Sandy Silty Shale fragments Med. & low plastic Free water to 6'		
4								
6								
8					CI			Moderate Ice Vc - Vr
10						— 10½'		
12						SHALE -Silty		Frozen Nbn
14								
16								
18								
20								
22								
24								
25						— 25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Free Water
4					Free Water
8					Moist
12					Damp
16					Humid

REMARKS

DS-14-5-74 b

BORROW PIT 13

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22968-121 | CHAINAGE. 1355+00 | OFFSET.

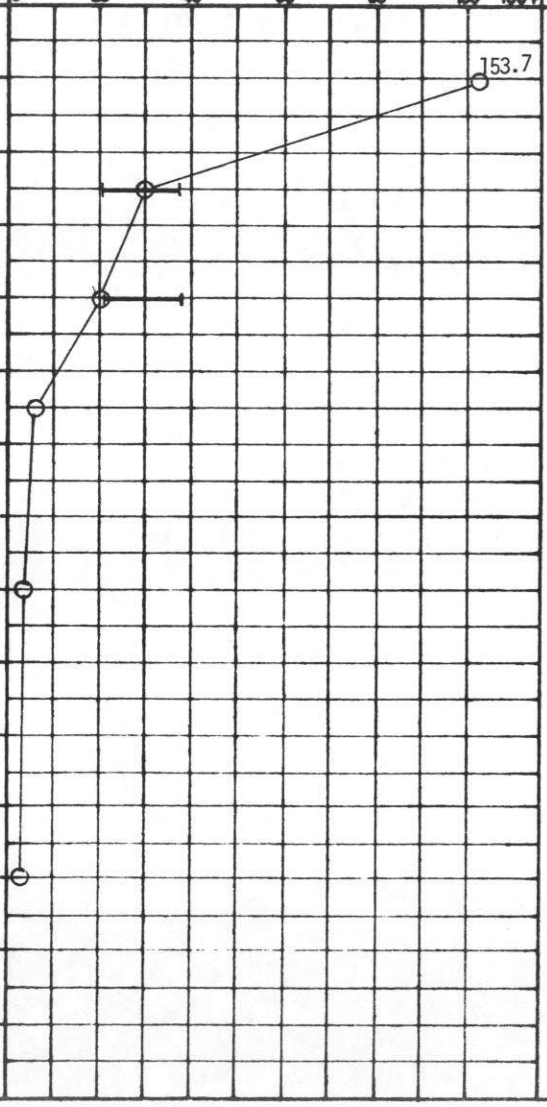
TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 13 | MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice Vs
1'								
2					CI	CLAY -Sandy Silty Shale fragments Med. plastic	F	Moderate To Low Ice Vc - Vr Vx
10'								
12						SHALE -Soft to hard		Frozen Nbn
25'								
26						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water
				Moist
				Moist
				Damp
				HUMID
				HUMID

DS-14-5-74 b

BORROW PIT 14

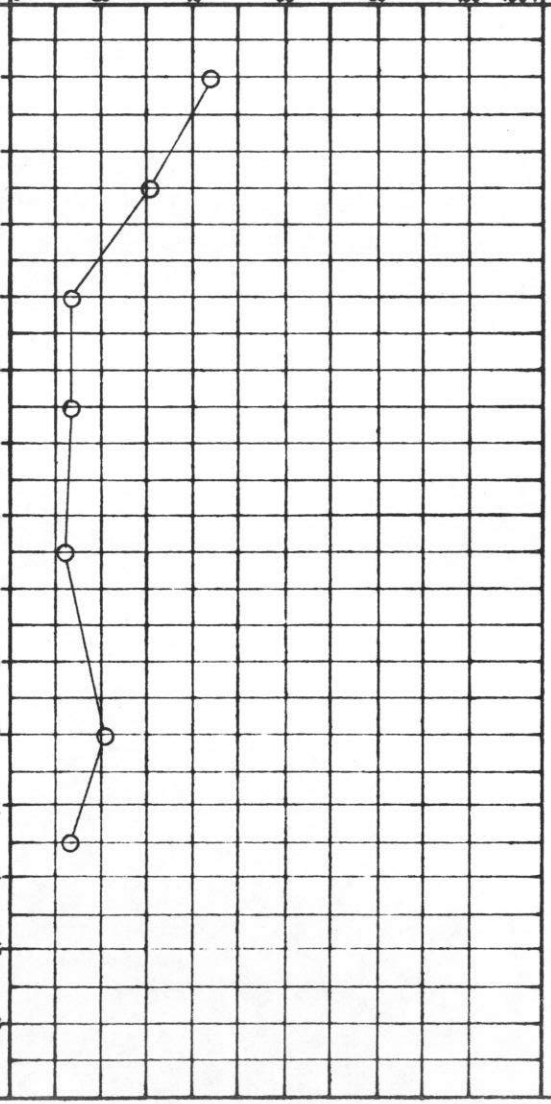
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE	1
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE	

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT .6'		High Ice					Free Water	
2					CL CI	CLAY -Sandy Silty Shale fragments Low to Med plastic		Vs					Sat.	
4														
6														
8													Moist	
10							F	Low Ice					Moist	
12														
14													Moist	
16								Vx						
18														
20													Damp	
22													Damp	
24														
26						25' BOTTOM OF HOLE - 25'									
28														



DS-14-5-74 b

BORROW PIT 14

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 2/12/73 | AIRPHOTO NO. A 22967-138 | CHAINAGE. 1627+25 | OFFSET.

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 6" | ELEV.

TEST HOLE 2 | MILE

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — .7'		High Ice Vs					Free Water	
2–4–6–8					CI	CLAY -Sandy Silty Shale fragments Med. plastic Pebbles		Moderate Ice Vc - Vr					Moist / Sat.	
10						10'	F							
12–14–16					ML	SILT -Clayey Sandy Pebbles Low plastic		Low Ice					Moist / Damp	
17						17'								
18–20–22–24					CL / CI	CLAY -Sandy Silty Pebbles Low to med plastic		Vx					Damp	
25						25'								
26–28						BOTTOM OF HOLE - 25'								

DS-14-5-74 b

BORROW PIT 14

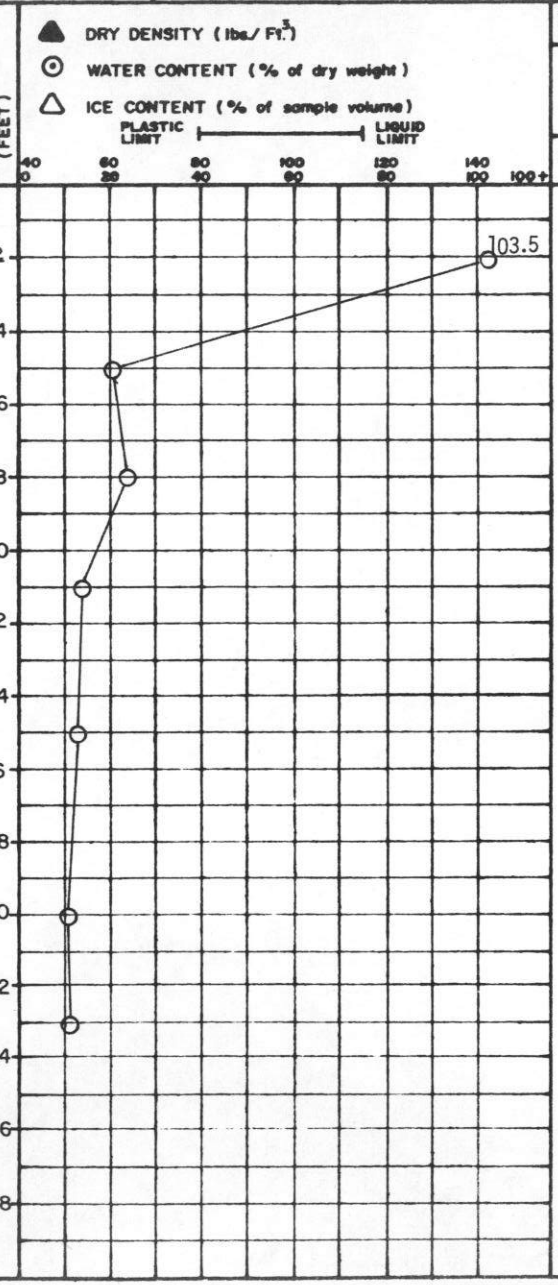
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE 3
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						1.4'		High Ice Vs
2						CLAY -Sandy Silty Shale fragments Pebbles Med. plastic		
4								
6								
8					CI			Moderate To Low Ice Vc - Vr Vx
10							F	
12								
14								
16								
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Moist	
				Moist	
				Moist	
				Moist	
				Damp	

DS-14-5-74 b

BORROW PIT 14

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE 4
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High
						1.3'		
2						SHALE		Ice
4						-Sandy		
						Silty		
6						Shale fragments		Vs
						Med. plastic		
8					CI			
10								Low
12							F	
14								Ice
16								Vx
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160 180+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Wet	
				Moist	
				Damp	
				Moist	
				Damp	

DS-14-5-74 b

BORROW PIT 14

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

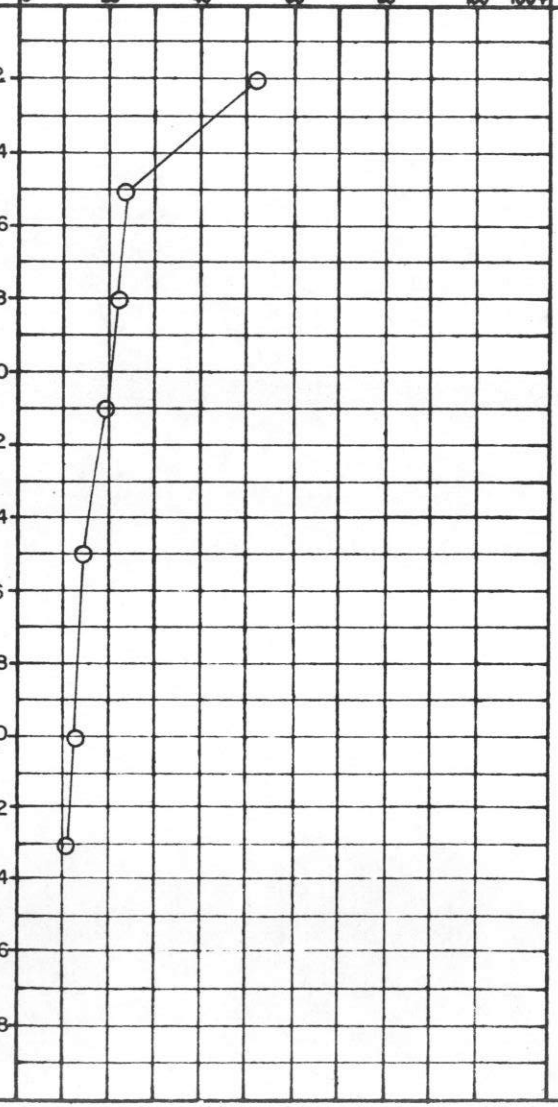
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE 5
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT .9'		High
2						CLAY		Ice
4					CL	-Sandy Silty Pebbles Shale fragments Low-med. plastic		
6								Vs
8					CI			Moderate
10							F	To
12								Low
14								Ice
16								Vx
18					CI			Vc - Vr
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Moist	
				Moist	
				Moist	
				Moist	
				Damp	

DS-14-5-74 b

BORROW PIT 14

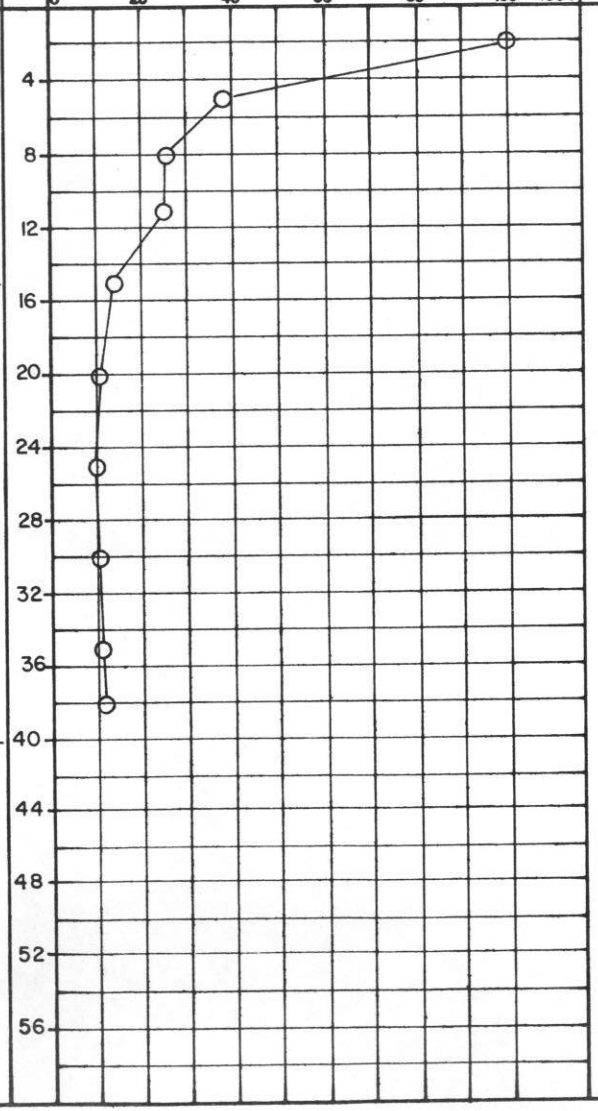
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE 6
TECH. McINTOSH	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT .4'		High Ice Vs	Free Water
4						CLAY -Sandy Silty Shale fragments Pebbles			Free Water
8								Moderate Ice Vc - Vr	Wet
12					CI	Med. plastic	F		Wet
16								Low Ice To Frozen Vx / Nbn	Damp
20									Damp
24									Damp
28									Damp
32									Damp
36									Damp
40						40'			Damp
44						BOTTOM OF HOLE - 40'			
48									
52									
56									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 a

BORROW PIT 14

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22967-138	CHAINAGE. 1627+25	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. LEVEL	VEGETATION. SPRUCE MAX. 8"	ELEV.

TEST HOLE 8

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		Moderate
2						CLAY -Silty Sandy Med. plastic		Ice
4								
6								Vc - Vr
8					CI		F	
10								Low
12								
14						— 15'		Ice
16						SHALE -Silty		
18								
20						— 20'		Vx
22					SM ML	SAND - Silty SILT - Sandy SHALE fragments		
24						SHALE -Silty soft		
26						— 26'		
28						BOTTOM OF HOLE - 26'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Wet	Hole In Bag
				Wet	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 14

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE 9
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	High Ice
						1½'		
2					CI	CLAY -Sandy Silty Shale fragments Med. plastic		Vs
4								
6								
8								Low Ice
10								
12								
						13'		
14						SHALE		Ice
						15'		
16					CI	SHALE -Sandy Silty Shale fragments Med. plastic		Vx
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Damp	
				Moist	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 14

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

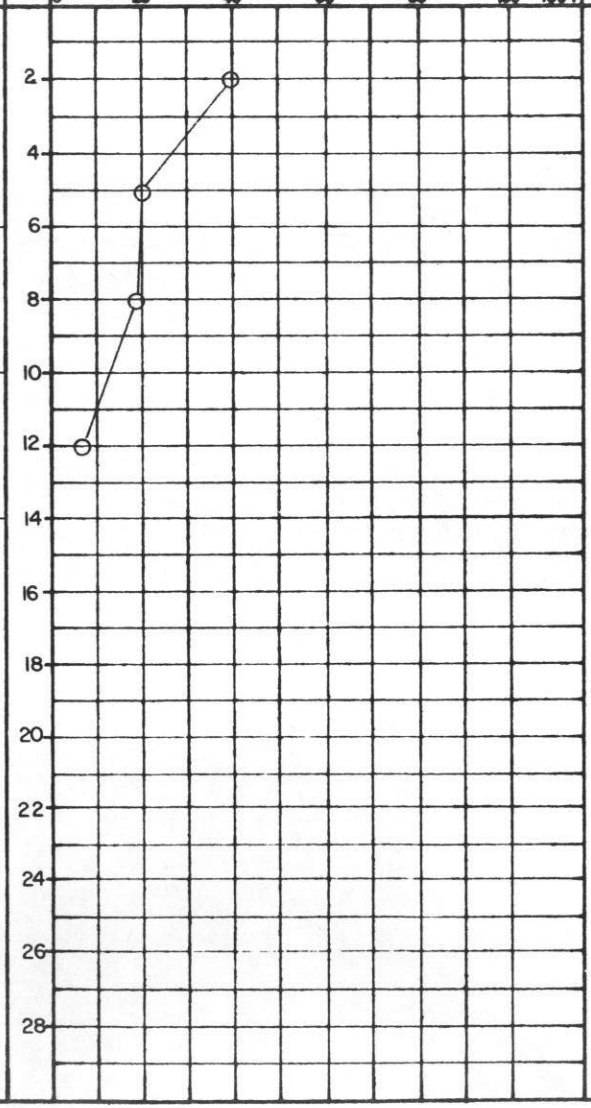
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22967-138	CHAINAGE. 1627+25	OFFSET.	TEST HOLE 10
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
						1.5'		
2						CLAY -Silty Sandy		
4								Vs
6					CL	Pebbles Shale fragments	F	
								Low Ice
8					CI	Low-med. plastic		
10								Vx
12						ICE & CLAY		ICE & CL
						14'		
14						BOTTOM OF HOLE - 14'		
16								
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Moist	
				Dry	Hole In Bag

DS-14-5-74 b

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 1
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 3"	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		Moderate Ice					Moist	
2					CI	Mixture of CLAY -Sandy Silty Very soft								
4													Wet	
6						SHALE -Med. plastic		Vc - Vr						
8													Wet	
10														
12							F						Wet	
14								Low Ice					Damp	
16														
18														
20								Vx					Moist	
22														
24													Moist	
26						25' — BOTTOM OF HOLE - 25'									
28														

DS-14-5-74 b

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 2
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 8"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		Moderate
2						CLAY		Ice
4						-Sandy		
6					CI	Silty		Vc - Vr
8						Shale fragments		
10						Pebbles		Vx
12							F	Low
14								Ice
16								
18								
20								
22								Vx
24								
26						25'		
28						BOTTOM OF HOLE - 25'		

▲ DRY DENSITY (lbs./Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Moist	
6					Wet	
8					Moist	
10					Moist	
16					Moist	
20					Damp	
22					Damp	

DS-14-5-74 b

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

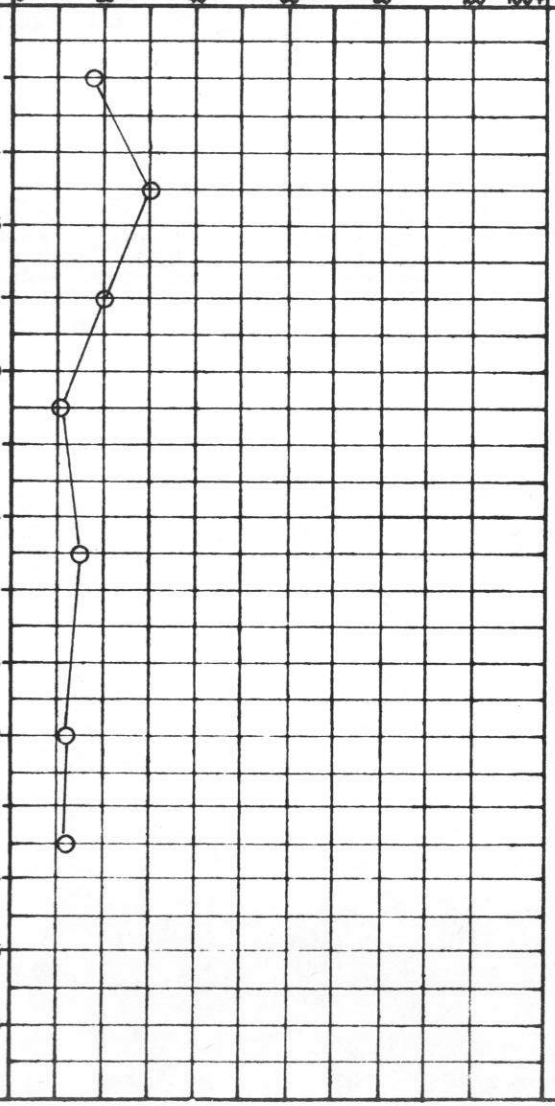
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/11/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 3
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 8"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					OH	ORGANIC & SILT	F	Moderate
						1.4'		
2						SHALE		Ice
						-Hard		
4						Silty		
6								Vc - Vr
8								
10						10'		
12						CLAY		Low
						-Sandy		
14						Silty		Ice
						Shale fragments		
16					CI	Med. plastic		
18								Vx
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Sat.	
				Wet	
				Moist	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 15

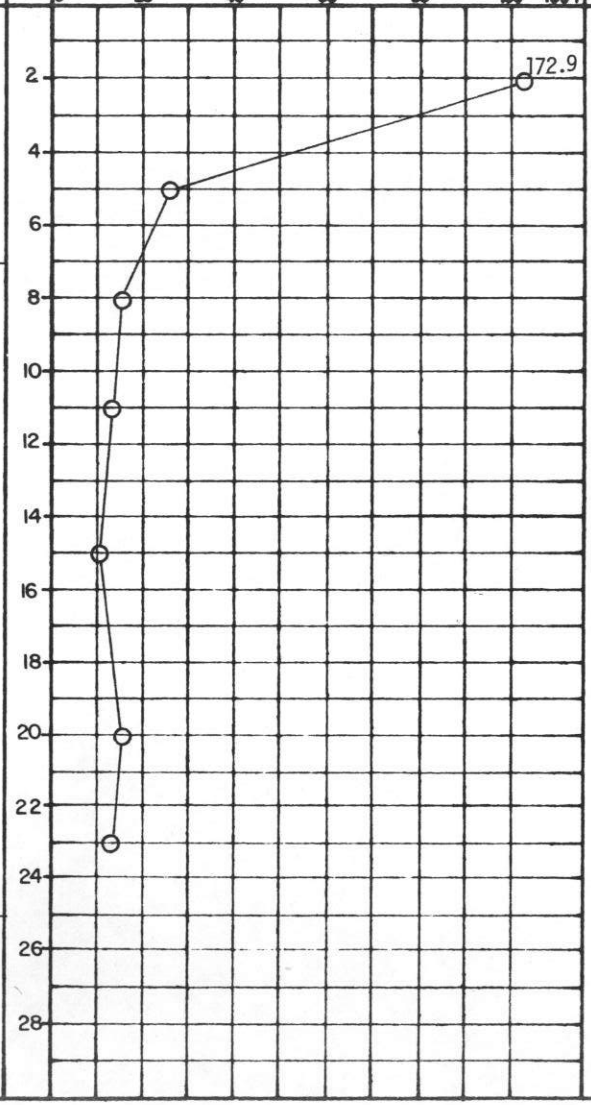
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 4
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	High
						1.4'		
2						CLAY		Ice
4						-Sandy		
						Silty		
6						Pebbles		Vs
						Shale fragments		
8					CI	Med plastic		
								Low
10								
								Ice
12								
14								
								Vx
16								
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Moist	
				Moist	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 5
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.1'								
2						CLAY -Silty Sandy		High					Free Water	
4								Ice						
6					CL	Pebbles Low plastic							Free Water	
8						— 8'		Vs						
					SM	SAND -Silty Pebbles							Wet	
10						— 10'								
12						CLAY -Silty Sandy Pebbles	F	Low					Damp	
14					CL	Low-med. plastic								
16								Ice					Damp	
18					CI									
20								Vx						
22													Damp	
24													Damp	
25						— 25'								
26						BOTTOM OF HOLE - 25'								
28														

DS-14-5-74 b

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 6
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. LEVEL	VEGETATION. SPRUCE	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — 8"		Moderate Ice					Wet	
2						CLAY -Silty Sandy Pebbles								
4													Wet	
6					CL	Low-med. plastic		Vc - Vr						
8					CI		F	Low Ice					Damp	
10													Damp	
12						Shale fragments								
14													Damp	
16														
18								Vx						
20													Damp	
22														
24														
26						26'								
28						BOTTOM OF HOLE - 26'								

DS-14-5-74 b

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED.	AIRPHOTO NO. A22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 7
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. LEVEL	VEGETATION. SPRUCE MAX. 10"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 8"		High Ice Vs	Free Water
4						CLAY -Silty Sandy Pebbles Med. plastic			Wet
8					CI			Low	Moist
12							F		Damp
16						— 17'			Damp
20						SHALE -Silty Soft - hard		Ice	Damp
24									
28								Vx	Damp
32								Frozen	
36								Nbn	Damp
40						— 40'			Damp
44						BOTTOM OF HOLE - 40'			
48									
52									
56									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
4	40	60	80	100	120	140			
8									
12									
16									
20									
24									
28									
32									
36									
40									
44									
48									
52									
56									

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 a

BORROW PIT 15

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22967-140	CHAINAGE. 1604+00	OFFSET.	TEST HOLE 8
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. LEVEL	VEGETATION. SPRUCE MAX. 10"	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 8"		Moderate Ice					Damp	
2						CLAY -Organic to 3' Silty Sandy Shale fragments Med. plastic								
4													Wet	
6								Vc - Vr						
8					CI								Moist	
10							F	Low Ice					Damp	
12						Pebbles								
14								Vx					Moist	
16						Shale fragments Hard								
18						— 17'								
20						SHALE -Silty Soft							Damp	
22														
24														
26						— 26'							Damp	
28						BOTTOM OF HOLE - 26'								

DS-14-5-74 b

BORROW PIT 16

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

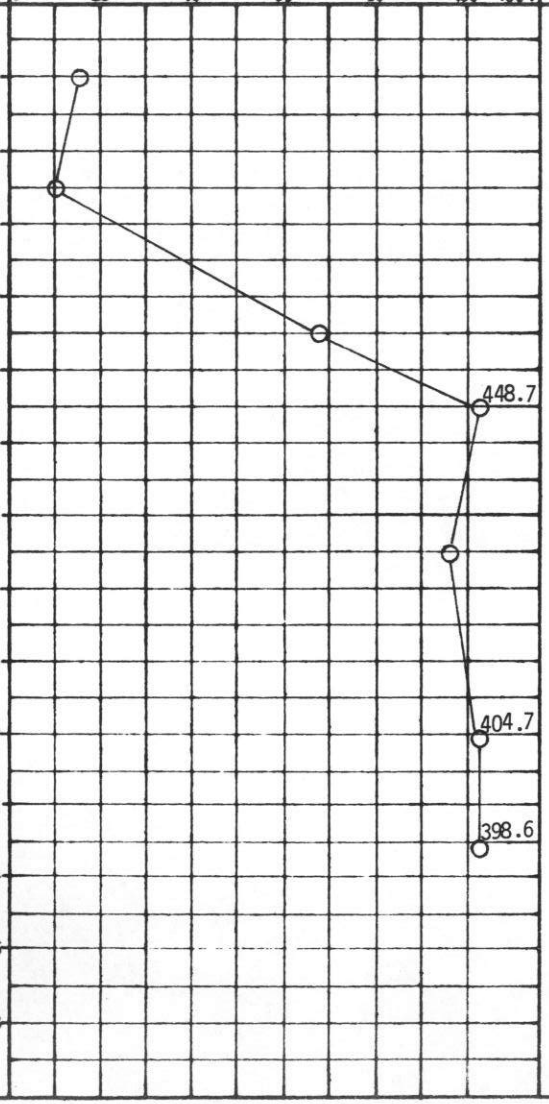
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-136	CHAINAGE. 1747+50	OFFSET.	
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 6"	ELEV.	TEST HOLE 1
					MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	Moderate Ice
						1.3'		
2						SHALE -Sandy Silty		Vc - Vr
4								
6								
8								High Ice
10								
12								
14								Vs
16								
						17'		
18					CL CI	CLAY -Sandy Silty Low-med. plastic		
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0						
2					Sat.	
4						
6					Wet	
8					Free Water	
10					Free Water	
12						
14					Free Water	
16						
18						
20					Free Water	
22					Free Water	
24						
26						
28						

DS-14-5-74 b

BORROW PIT 16

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 1/12/73	AIRPHOTO NO. A 22967-136	CHAINAGE. 1747+50	OFFSET.	
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE & BIRCH	ELEV.	TEST HOLE 2 / MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1.1'	F	High Ice Vs
2					CL	CLAY -Sandy Silty Shale fragments Pebbles Low to med plastic		Vc - Vr
4								High Ice Vs
6								Moderate Ice
8								Vc - Vr
10								
12					CI			
14								
16								
18								
20								
22						ICE & SAND — 25'		High Ice Vs
24								
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

726.0

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				0 Free Water	
				4 Wet	
				8 Sat.	
				10 Moist	
				14 Wet	
				20 Wet	
				22 Free Water	

DS-14-5-74 b

BORROW PIT 16

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

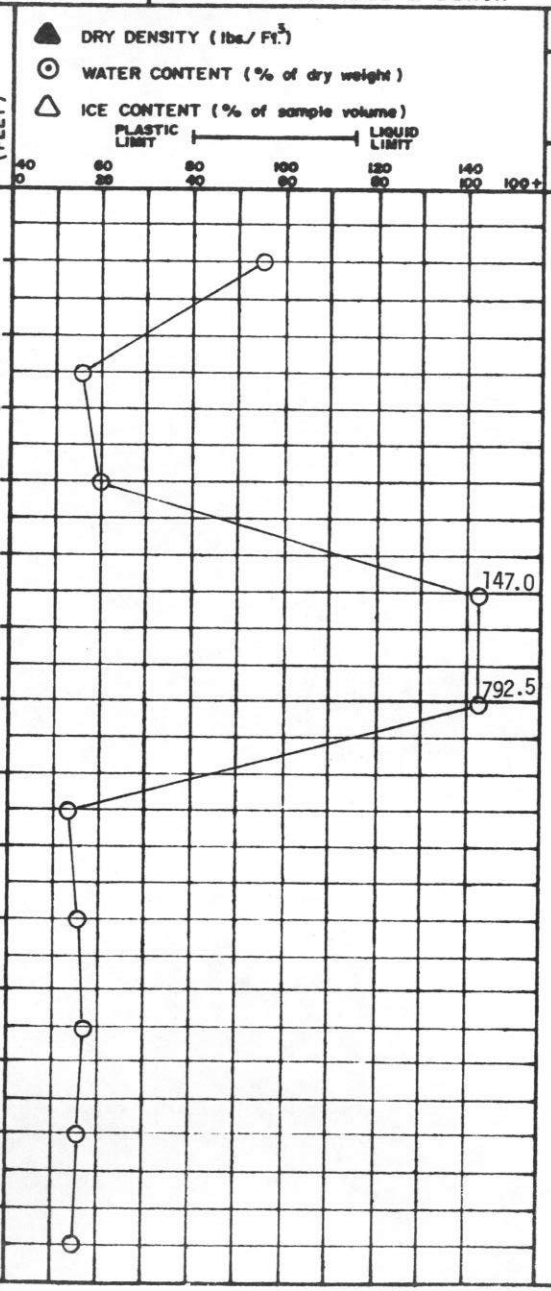
FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22967-136 | CHAINAGE. 1747+50 | OFFSET.

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. GOOD | VEGETATION. SPRUCE & BIRCH | ELEV.

TEST HOLE 3 | MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 5"		
2					OL ML	SILT -Organic Shale fragments Free water — 4'	F	High Ice Vs
4								
6					CL CI	CLAY -Sandy Silty Shale fragments Low to med plastic — 10'		Moderate Ice Vc - Vr
8								
10								
12						ICE - SAND - PEBBLES — 15'	F	ICE
14								
16					CL CI	As From 4' - 10' — 19'		Low Ice
18								
20						SHALE -Soft to med. hard	F	Vx
22								
24								
26								
28						— 29'		

BOTTOM OF HOLE - 29'



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Sat.	
				Free Water	
				Water	
				Moist	
				Moist	
				Moist	
				Moist	
				Damp	

DS-14-5-74 b

BORROW PIT 17

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

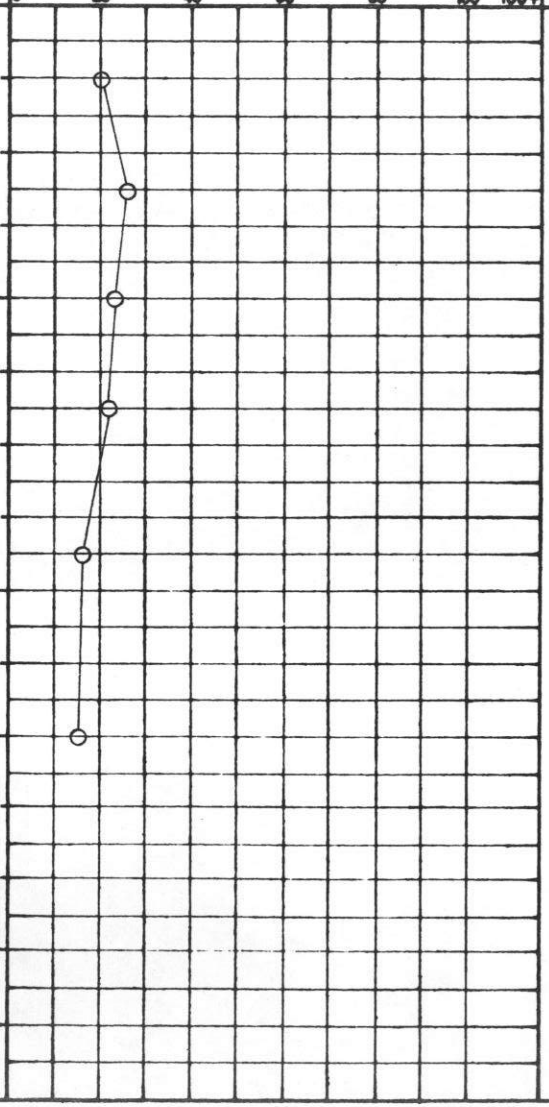
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A22969-105	CHAINAGE. 981+00	OFFSET.	TEST HOLE 1
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE & WILLOWS	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 8"		
2						CLAY -Silty Sandy Pebbles Low-med. plastic		Moderate Ice
4								
6								
8					CL			Vc - Vr
10							F	
12						Shale fragments		
14					CI			Low Ice
16								
18								
20								Vx
22						22'		
24						SHALE -Silty		
26						26'		
28						BOTTOM OF HOLE - 26'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Wet	
				Wet	
				Moist	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 17

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A22969-105	CHAINAGE. 981+00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. WILLOWS	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 8"		
2						CLAY		Moderate
4						-Silty		
6						Sandy		
8						Low-med. plastic		Ice
10					CL	Cobbles		Vc - Vr
12						Pebbles	F	
14					CI			
16								
18								
20					CL			
22								
24								
26						27'		
28						BOTTOM OF HOLE - 27'		

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Wet	
				Damp	
				Wet	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 17

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

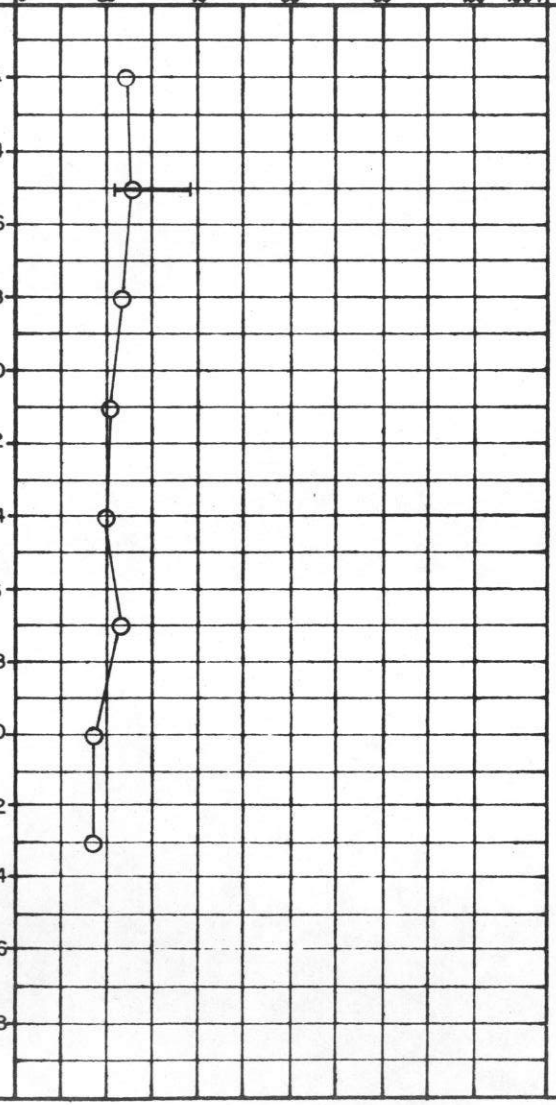
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-105	CHAINAGE. 981+00	OFFSET.	TEST HOLE 5
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. WILLOWS	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Moderate
						1.5'		
2						CLAY		
4						-Sandy		To
						Silty		
6						5% Shale fragments		Low
						Med. plastic		
8						Cobbles at 3'	F	Ice
					CI			
10								Vc - Vr
12								
14								
								Vx
16								
18								
20								
22								
						23'		
24						BOTTOM OF HOLE - 23'		
26								
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Wet	
				Moist	
				Moist	
				Damp	
				Moist	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 18

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

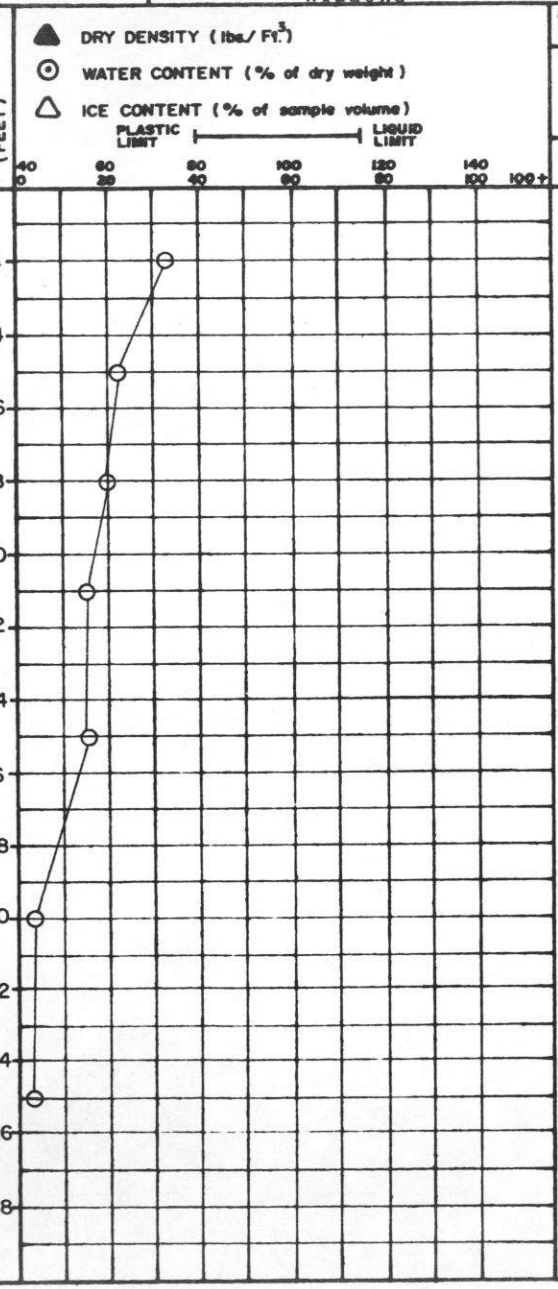
FIELD ENG. B. CONSTANT | DATE DRILLED. 2/12/73 | AIRPHOTO NO. A22969-105 | CHAINAGE. 981+00 | OFFSET.

TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. POOR | VEGETATION. WILLOWS | ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		Moderate Ice
2						CLAY -Silty Organic to 3' Sandy Pebbles		
4								
6					CL	Low-med. plastic		Vc - Vr
8								
10					CI			Low Ice
12								
14								
16								Vx
18						— 17' — SHALE -Silty Soft - hard		Frozen Nbn
20								
22								
24								
26						— 26' — BOTTOM OF HOLE - 26'		
28								



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

RELATIVE THAWED MOISTURE CONTENT
Wet
Moist
Damp
Damp
Damp
Humid
Humid

REMARKS

DS-14-5-74 b

BORROW PIT 19

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22969-44 | CHAINAGE. 1066+00 (INTERSECTION OF SEISMIC LINES 1 & 2)

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — .5'		Low	
2						CLAY -Sandy Silty Med. plastic			Moist
4					CI			Ice	Moist
6								Vx	
8						— 8'			Humid
10						SHALE -Silty Med. hard	F		Humid
12									
14								Nbn	Humid
16								Frozen	
18									
20									HUMID
22									
24									HUMID
26						— 25' BOTTOM OF HOLE - 25'			
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

BORROW PIT 19

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 1/12/73 | AIRPHOTO NO. A 22969-44 | CHAINAGE. 1066+00 (INTERSECTION OF SEISMIC LINES ℄ ℄)

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE | ELEV.

TEST HOLE 2 | MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — .5'		Moderate	Moist
2						CLAY -Sandy Silty Shale fragments Med. plastic		Ice	Moist
4									
6					CI			Vc - Vr	
8						— 8'			Damp
10						SHALE -Silty Soft-med. hard	F		Humid
12								Frozen	
14									Damp
16								Nbn	
18									HUMID
20									
22									
24									HUMID
						— 25'			
26						BOTTOM OF HOLE - 25'			
28									

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

BORROW PIT 19

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 2/12/73 | AIRPHOTO NO. A 22969-44 | CHAINAGE. 1066+00 (INTERSECTION OF SEISMIC LINES & ℄)

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE | ELEV.

TEST HOLE 3

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 8"			
2					CI	CLAY -Sandy Silty Pebbles Med. plastic		Low Ice Vx	Moist
4									Damp
6									
8						— 8'			Damp
10						SHALE -Silty Soft	F		Humid
12								Frozen	
14									Humid
16						Soft-med. hard		Nbn	
18									Humid
20									
22									
24									Humid
						— 25'			
26						BOTTOM OF HOLE - 25'			
28									

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160	180+
2	●									
4										
6										
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										

GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 2/12/73 | AIRPHOTO NO. A 22969-44 | CHAINAGE. 1066+00 | OFFSET.

TECH. SAWCHUK | RIG. MAYHEW - #2 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE MAX. 8" | ELEV.

TEST HOLE 1

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					OH	ORGANIC — 8"							
2					CI	CLAY -Sandy Silty Shale fragments Till Med. plastic		Low Ice Vx					Damp Moist
8						— 8'							Damp
10						SHALE -Silty Med. hard Med. hard - hard	F	Frozen Nbn					Damp Humid
20													Humid
24													Humid
25						— 25'							
26						BOTTOM OF HOLE - 25'							

DS-14-5-74 b

BORROW PIT 20

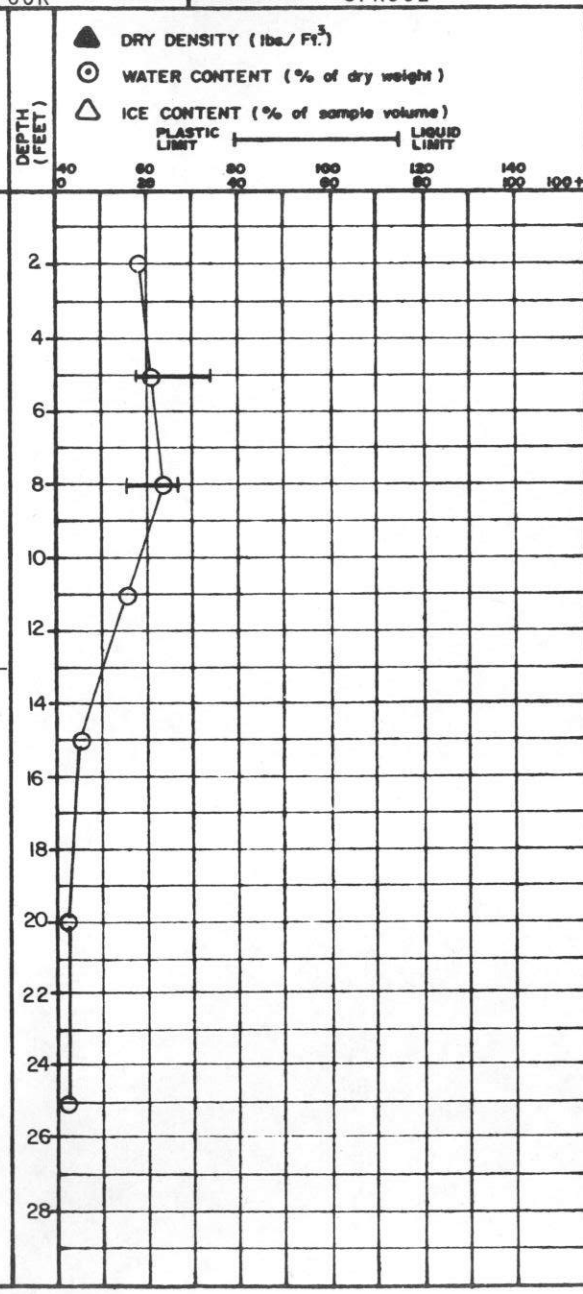
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 2
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					OH	ORGANIC 8"								
2					CI	CLAY -Sandy Silty Shale fragments Pebbles - Till Med. plastic	F	Moderate					Moist	
4								Ice					Moist	
6														
8								Vc - Vr					Wet	
10													Moist	
12						13'								
14						SHALE -Silty Med. hard		Frozen					Damp	
16														
18								Nbn						
20													Humid	
22														
24													Humid	
26														
28						30'								



BOTTOM OF HOLE - 30'

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

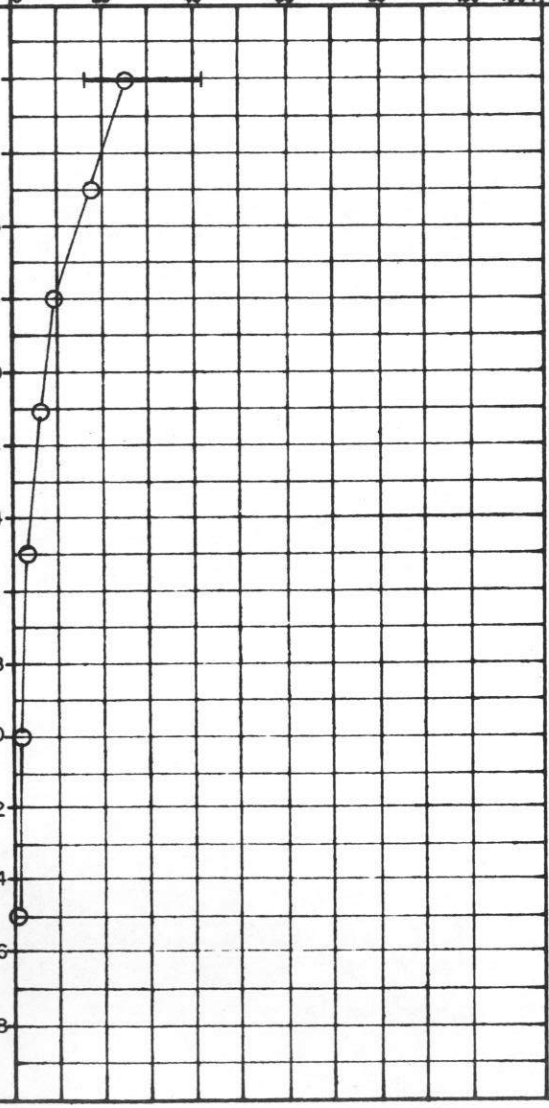
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 8"		
2						CLAY -Sandy Silty Shale & Siltstone fragments Med. plastic		Moderate Ice Vc - Vr
4								
6					CI		F	
8						— 8'		
10						SHALE -Silty Med. hard Hard		Frozen Nbn
12								
14								
16								
18								
20								
22								
24								
26						— 26'		
28						BOTTOM OF HOLE - 26'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Moist	
				Damp	
				Humid	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 20

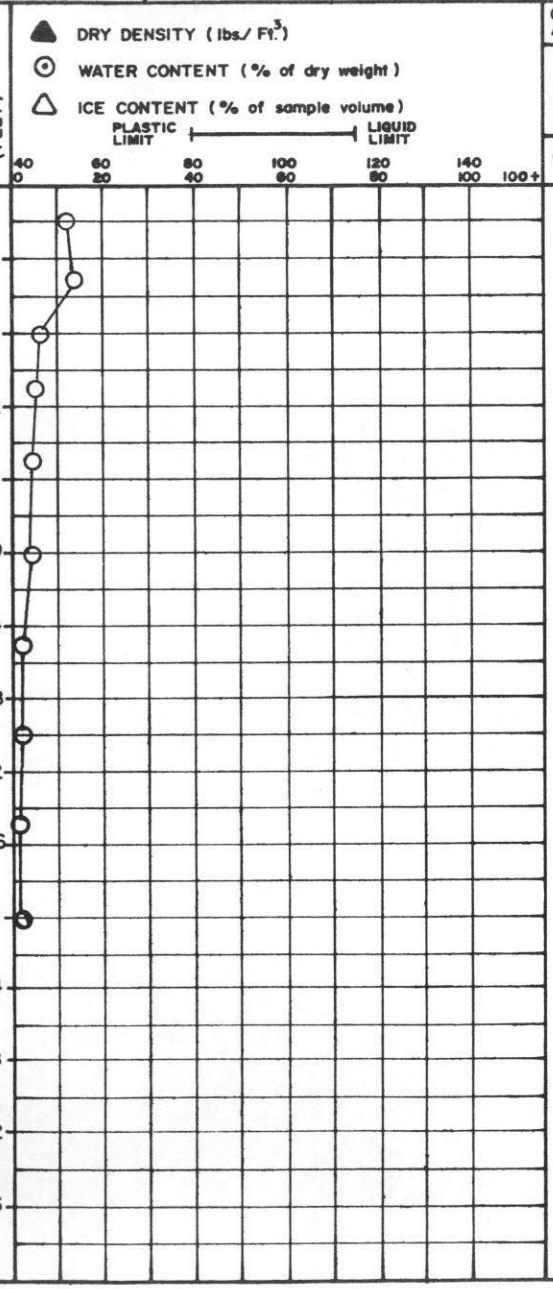
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.	TEST HOLE 4
					MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT — 8"		Low Ice	Damp
4					CI	CLAY -Sandy, silty Shale fragments Med. plastic — 7'		Vx	Damp
8									Damp
12						SHALE -Silty Soft-med. hard	F	Frozen	Damp
16						Soft		Nbn	Humid
20						Hard			Humid
24									Humid
28									Humid
32									Humid
36									Humid
40						41'			Humid
44						BOTTOM OF HOLE - 41'			
48									
52									
56									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 a

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

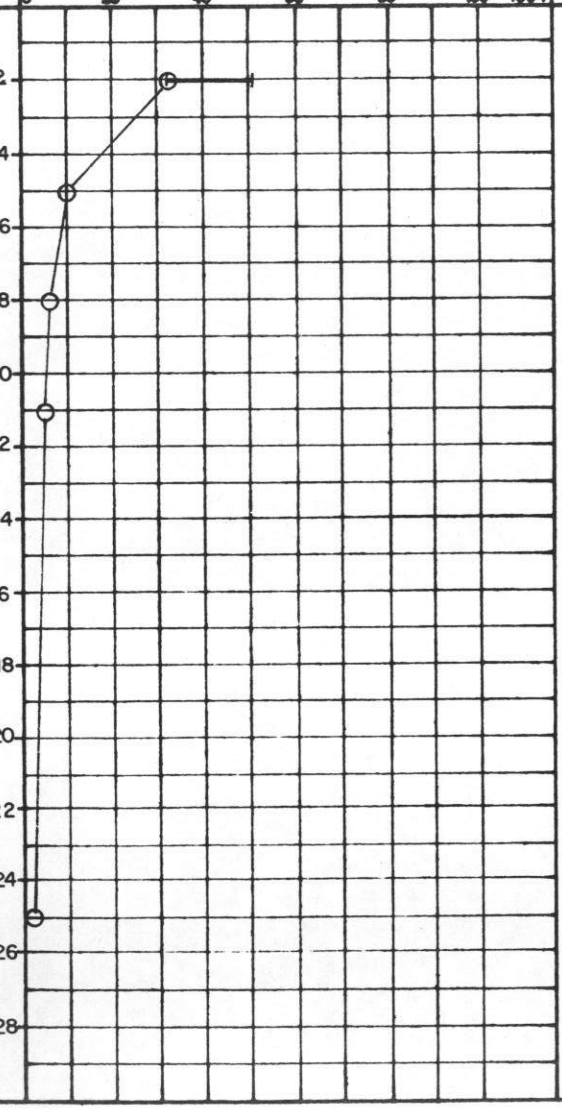
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 8
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Moderate Ice Vc - Vr
						1½'		
2					CI	CLAY -Sandy Silty Med. plastic		
4								
						5'		
6						SHALE -Silty Alternate layers of soft to hard		
8								Frozen
10							F	Nbn
12								
14								
16								
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Moist	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 9
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140
0 20 40 60 80 100 100+

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT — 8"		Moderate						
2						CLAY -Sandy Silty Shale fragments Low to med plastic		Ice					Moist	
4					CI								Moist	
6								Vc - Vr						
8													Moist	
						— 9'								
10						SHALE -Silty Med. hard - hard	F						Damp	
12								Frozen						
14								Nbn					Humid	
16														
18														
20													Humid	
22														
24													Humid	
						— 25'								
26						BOTTOM OF HOLE - 25'								
28														

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

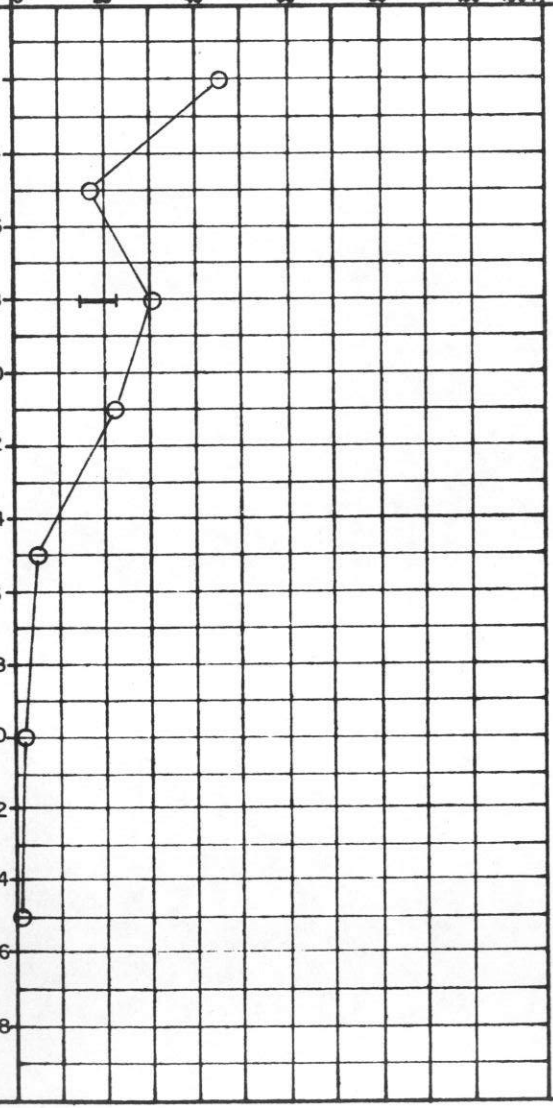
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 11
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 8"		
2						CLAY -Organic to 3' Sandy Silty Shale fragments		High &
4					CL	Low to med plastic		Moderate
6					CI			Ice
8						— 7½'	F	Vs
					ML	SILT -Clayey Sandy		
10						— 10'		Vc - Vr
12						SHALE -Silty Med. hard - hard		Low Vx
14								
16								Ice
18								To
20								Frozen
22								Nbn
24								
						— 25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Wet
4					Moist
8					Wet
10					Damp
14					Humid
20					Humid
24					Humid

GRAIN-SIZE ANALYSIS

REMARKS

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 2/12/73 | AIRPHOTO NO. A 22969-44 | CHAINAGE. 1066+00 | OFFSET.

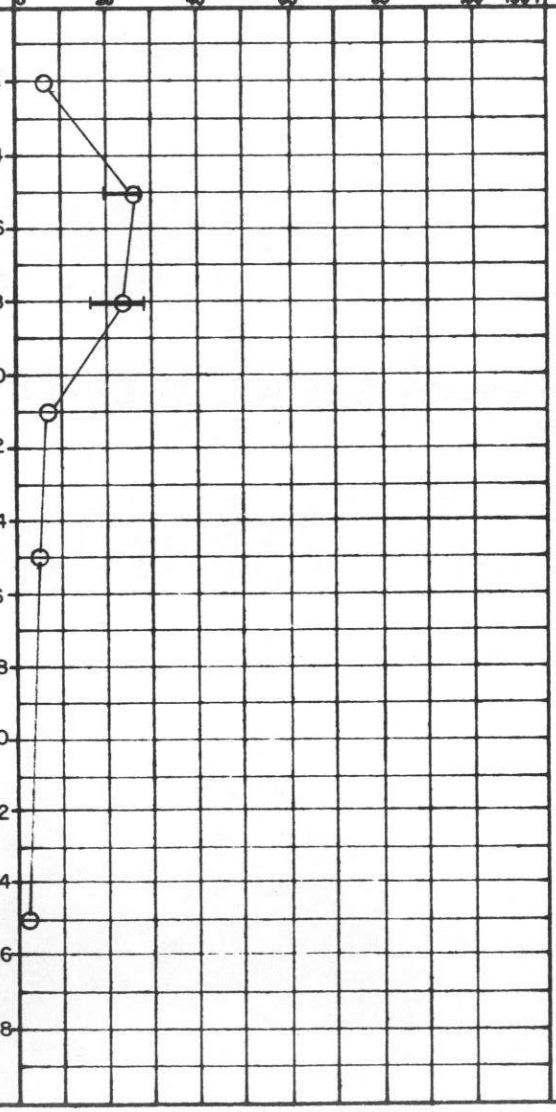
TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE | ELEV.

TEST HOLE 13

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		Low Ice Vx
2						CLAY -Sandy Silty Shale fragments Low plastic		
4					CL			Moderate Ice
6					CI			
8						— 9'		Vc - Vr
10						SHALE -Silty Med. hard		
12							F	Frozen
14								Nbn
16								
18								
20								
22								
24								
						— 25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS

DEPTH (FEET)	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Moist	
4					Moist	
8					Moist	
10					Damp	
14					Damp	
24					Humid	

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

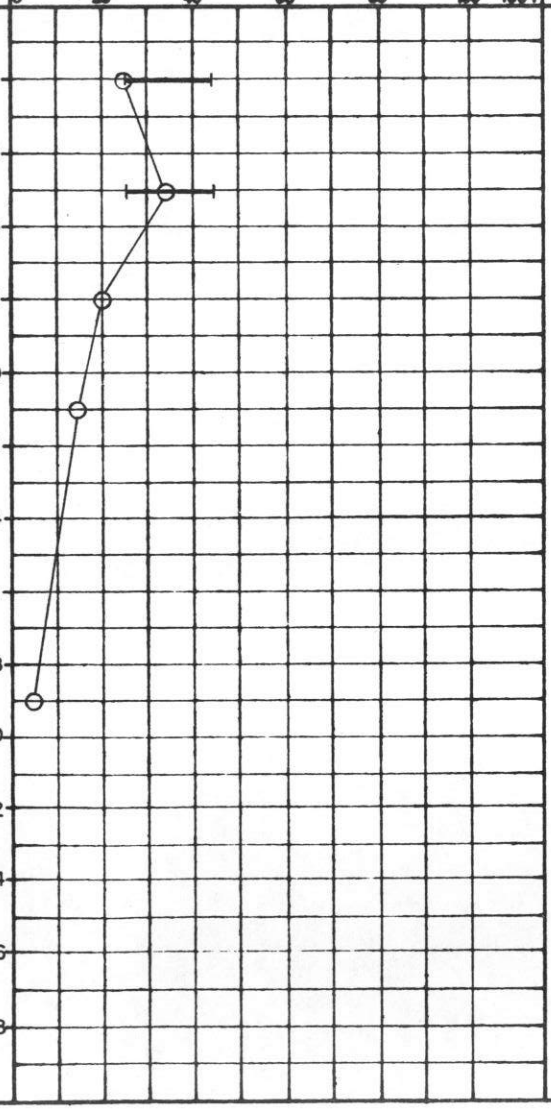
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 14
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 9"		Moderate
2						CLAY -Sandy Silty Shale fragments Low to med plastic		To
4								Low
6					CI			Ice
8								
10							F	Vc - Vr
12						— 12'		Vx
14						SHALE -Alternate soft & Hard layers		Frozen
16								Nbn
18								
20								
22								
24						— 25'		
26						BOTTOM OF HOLE 25' ?		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DEPTH (FEET)	RELATIVE THAWED MOISTURE CONTENT
2	Moist
4	Moist
8	Moist
10	Damp
18	Humid

REMARKS

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 15
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 8"		High Ice Vs	Free Water
2					CL CI	CLAY -Sandy Silty Shale fragments Low to med plastic			Moist
4									
6									
8						— 8'	F	Frozen	Damp
10						SHALE -Alternate soft & Hard layers			Humid
12								Nbn	
14									Humid
16									
18									Humid
20									
22									
24									Humid
26						— 25'			
28						BOTTOM OF HOLE - 25'			

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	100+
2			●						
4				●					
6									
8				●					
10				●					
12									
14				●					
16									
18				●					
20									
22									
24				●					
26									
28									

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 b

BORROW PIT 20

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 2/12/73	AIRPHOTO NO. A 22969-44	CHAINAGE. 1066+00	OFFSET.	TEST HOLE 16
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)
					Pt	PEAT — 1'		High Ice	2
2					CL CI	CLAY -Sandy Silty Shale fragments Low to med plastic		Vs	4
4									6
6									8
8						— 8'			10
10						SHALE -Soft to hard	F	Frozen 'Nbn	12
12									14
14									16
16									18
18									20
20									22
22									24
24									26
26						— 25'			28
28						BOTTOM OF HOLE - 25'			

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Damp	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 21

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

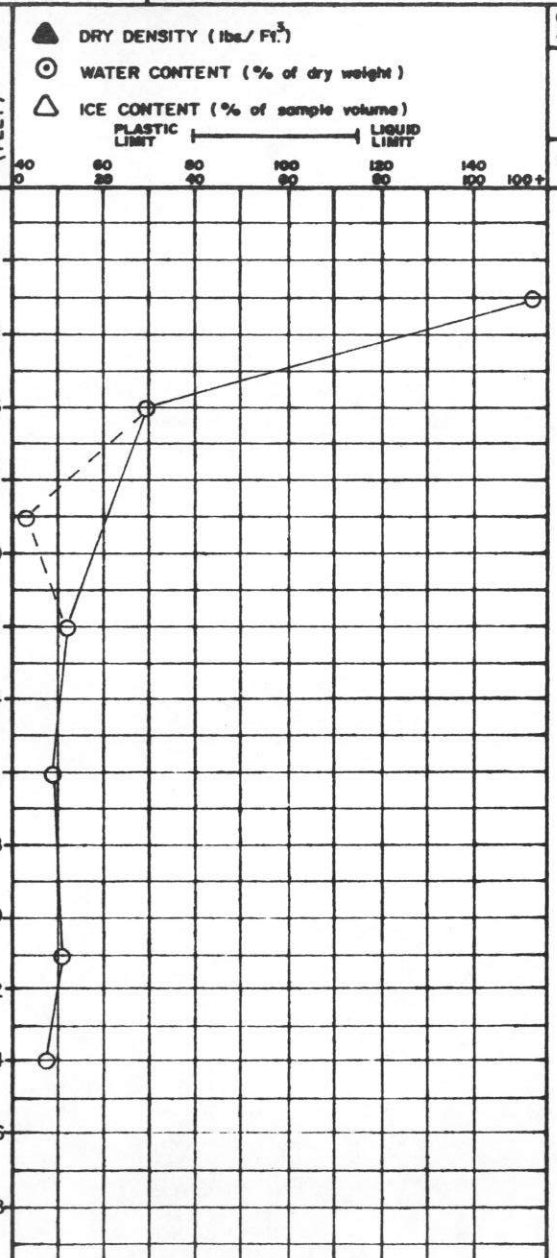
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A22967-38	CHAINAGE. 1768+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		High
						2'		
4						CLAY -Organic to 4' Silty Sandy Pebbles Med. plastic		Ice
6								Vs
8								
10								Low
12					CI			
14							F	Ice
16								
18								Vx
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								



DEPTH (FEET)	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
6					Sat.	
10						Hole In Bag
12					Damp	
16					Damp	
20					Damp	
24					Damp	

GRAIN-SIZE ANALYSIS

DS-14-5-74 b

BORROW PIT 21

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A22967-38	CHAINAGE. 1768+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 2

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT — 2'		High Ice
4						CLAY -Silty Sandy Pebbles Low-med. plastic		Vs
6								Moderate Ice
8								Vc - Vr
10					CL			Low
12					CI		F	
14								
16								Ice
18								
20								
22								Vx
24								
26						25' — BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
4						
6					Wet	
8						
10					Moist	
12					Damp	
14						
16					Damp	
18						
20						
22					Damp	
24					Damp	
26						
28						

DS-14-5-74 b

BORROW PIT 21

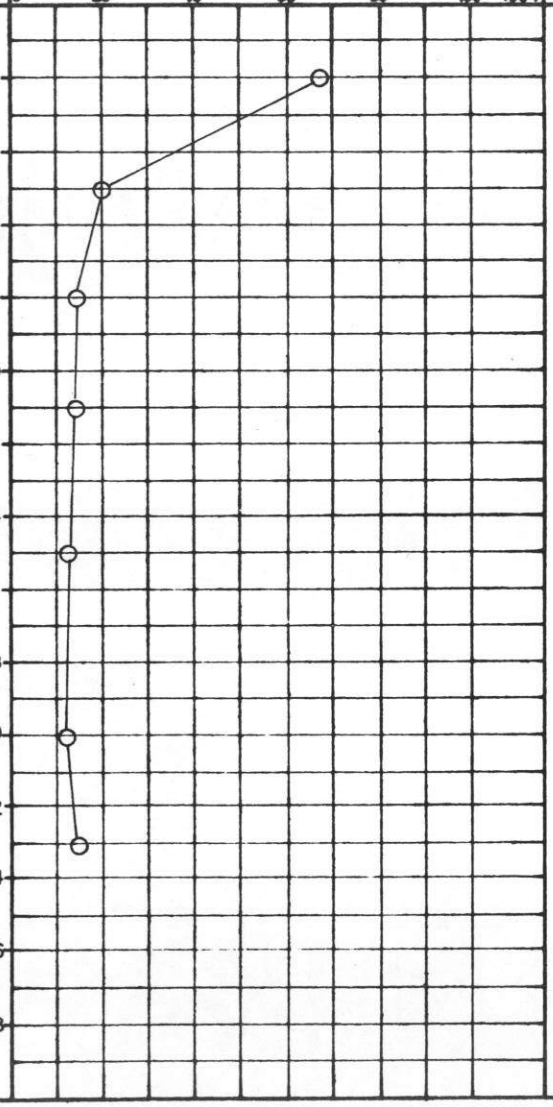
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22967-38	CHAINAGE. 1768+00	OFFSET.		TEST HOLE 3
TECH.	RIG.	SURFACE DRAINAGE.	VEGETATION.	ELEV.		MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		High Ice
						2'		
4						CLAY -Sandy Silty Shale fragment Pebbles		Vs
6					CL	Low to med plastic		
8								Vx
10					CI		F	
12								Low Ice
14								
16								
18								
20								Vx
22								
						23'		
24					ML	SILT-Clayey, sandy Pebbles		
						25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Moist	
				Damp	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 22

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED.	AIRPHOTO NO. A22969-105	CHAINAGE. 999+00	OFFSET.
TECH. SAWCHUK	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. BIRCH - WILLOWS	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 4"		
2						CLAY -Silty Sandy Pebbles Med. plastic		Low & Moderate Ice Vx Vc - Vr
4								
6							F	
8					CI			
10								
12								
14						14'		
16						BOTTOM OF HOLE - 14'		
18								
20								
22								
24								
26								
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Damp	
				Wet	
				Moist	
				Damp	
				Wet	

DS-14-5-74 b

BORROW PIT 23

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22968-40	CHAINAGE. D133 MINUS 100'	OFFSET.
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.

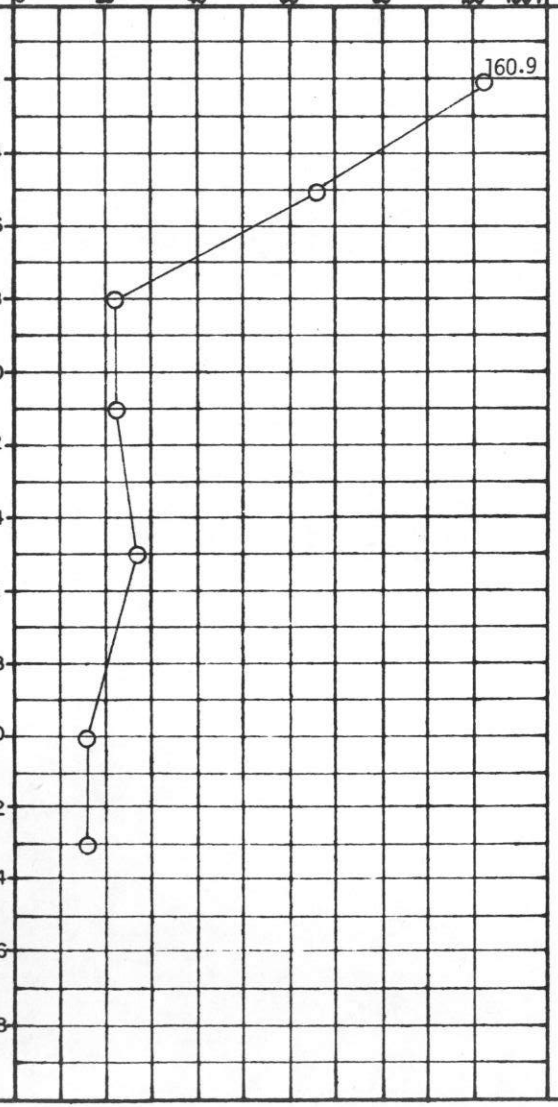
TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						1.4'		High Ice
2					OL ML	ORGANIC -Sandy, silty		
4						4'		Vs
6						CLAY -Sandy Silty Shale fragments Low to med plastic		
8					CL			Moderate Ice
10							F	
12					CI			Vc - Vr
14								
16					CL			Vs High Ice
18								Moderate Ice
20								
22								
24								Vc - Vr
						25'		
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Free Water	
				Moist	
				Moist	
				Free Water	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 23

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A22968-40	CHAINAGE. 1451+00	OFFSET.	TEST HOLE 2
TECH. MCINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE - ALDER 6"	ELEV.	MILE

DRY DENSITY (lbs./ Ft.³) ▲ — WATER CONTENT (% of dry weight) ⊙ — ICE CONTENT (% of sample volume) △

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'		High Ice Vs					Free Water	
2						CLAY -Silty Sandy Pebbles Med. plastic								
4														
6								Moderate					Wet	
8								Ice					Damp	
10					CI		F							
12								Vc - Vr					Damp	
14														
16													Damp	
18								Low Ice Vx						
20						Shale fragments							Damp	
22														
24						23' SHALE-Silty Soft-med. hard 25'							Humid		
26						BOTTOM OF HOLE - 25'								
28														

DS-14-5-74 b

BORROW PIT 23

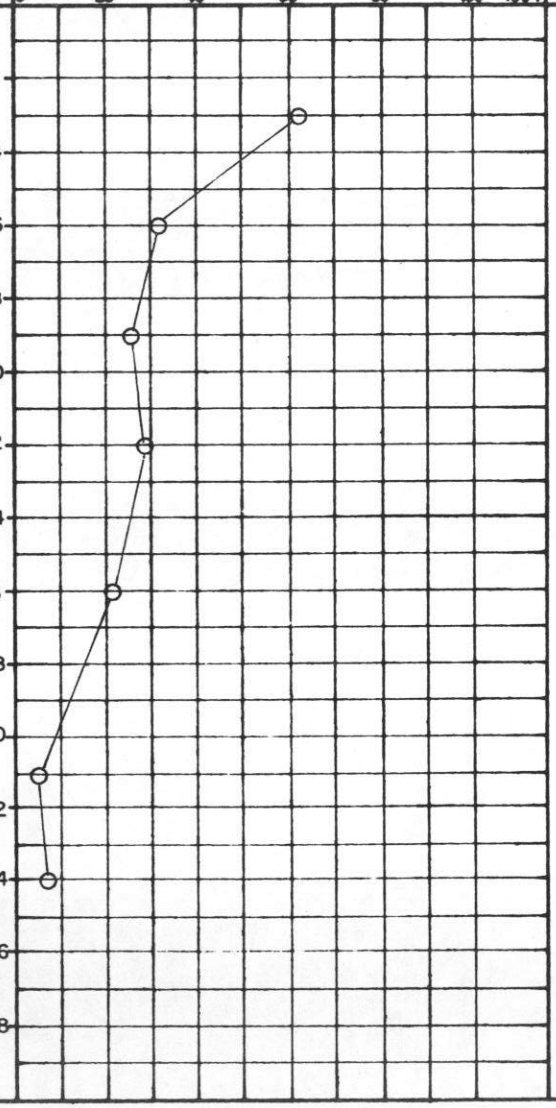
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A22968-40	CHAINAGE. 1451+00	OFFSET.	TEST HOLE 3
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE - ALDER 3"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						1.4'		
2						CLAY -Silty Sandy Low-med. plastic		High
4								
6								Ice
8					CL			
						Pebbles		Vs
10					CI		F	
12								
14								Moderate
16								Ice
18								Vc - Vr
						18'		
20						SHALE -Soft-med. hard		Nil
22								Ice
24								Vx
								Nbn
						25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Wet	
				Sat.	
				Damp	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 23

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. A 22968-40 | CHAINAGE. D133 MINUS 100' | OFFSET.

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. POOR | VEGETATION. SPRUCE & ALDER | ELEV.

TEST HOLE 6

MILE

REMARKS

DRY DENSITY (lbs./ Ft.^{3}) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT		High Ice Vs					Free Water
1.7'													
2–6					CL	CLAY -Sandy Silty Low-med plastic		Moderate Ice					Sat
6–8					CI								
8–10							F	Ice					Moist
10–12								$V_c - V_r$					Damp
14'								V_x					
14–16						SHALE -Silty Soft		Low Ice					Damp
16–20								V_x					Damp
20–24													Humid
25'													
26–28						BOTTOM OF HOLE - 25'							

DS-14-5-74 b

BORROW PIT 24

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

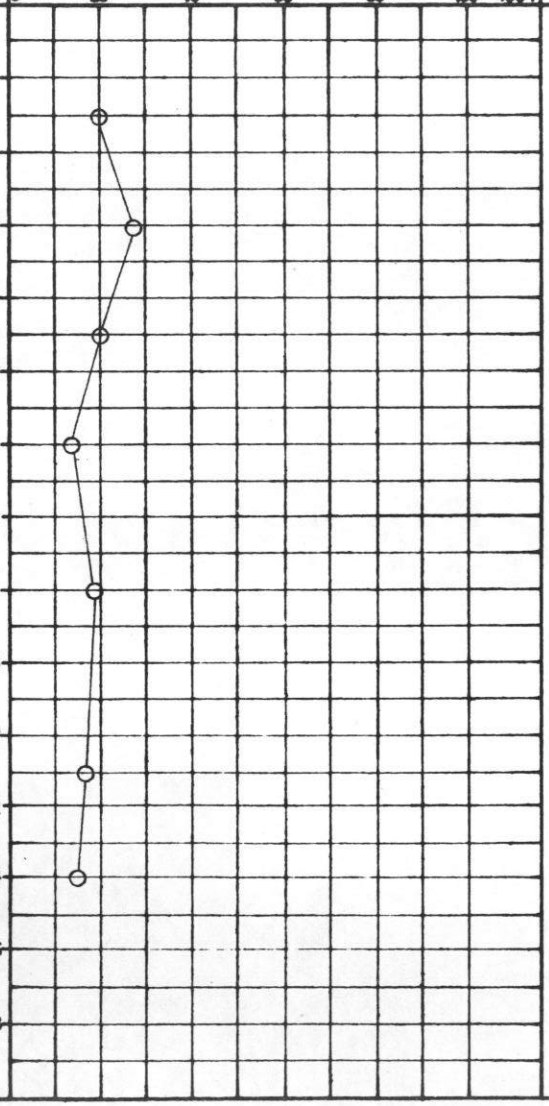
FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22968-42	CHAINAGE. 1491+00	OFFSET.
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE MAX. 4"	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Moderate
1.3'								
2						CLAY -Sandy Silty Pebbles Med. plastic		Ice
4								
6								Vc - Vr
8								
10					CI		F	
12								Low
14								Ice
16								
18								Vx
20								
22								
24								
25'								
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Moist
				Sat.
				Wet
				Damp
				Damp
				Damp
				Damp

REMARKS

DS-14-5-74 b

BORROW PIT 24

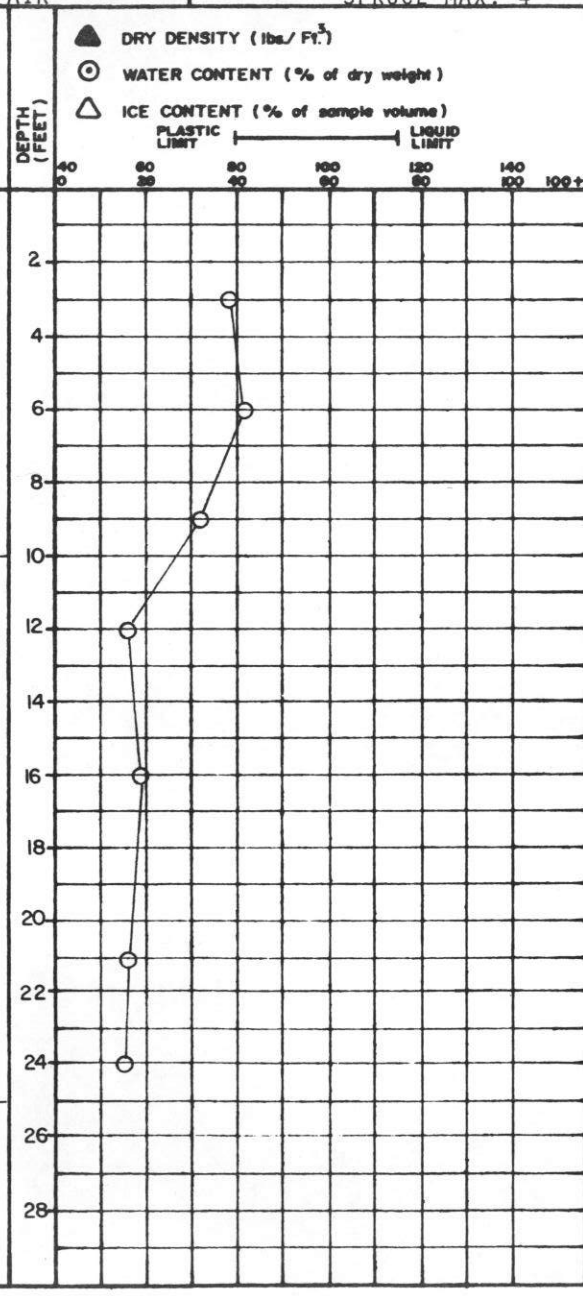
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22968-42	CHAINAGE. 1491+00	OFFSET.	TEST HOLE 2
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 1.1		High						
2						CLAY								
						-Organic to 4'							Moist	
4						Sandy		Ice						
						Silty								
6						Pebbles							Free Water	
						Med. plastic		Vs						
8														
													Wet	
10					CI		F							
12								Low					Wet	
14														
16								Ice					Damp	
18														
								Vx						
20														
													Damp	
22														
24													Damp	
						25'								
26						BOTTOM OF HOLE - 25'								
28														



DS-14-5-74 b

BORROW PIT 24

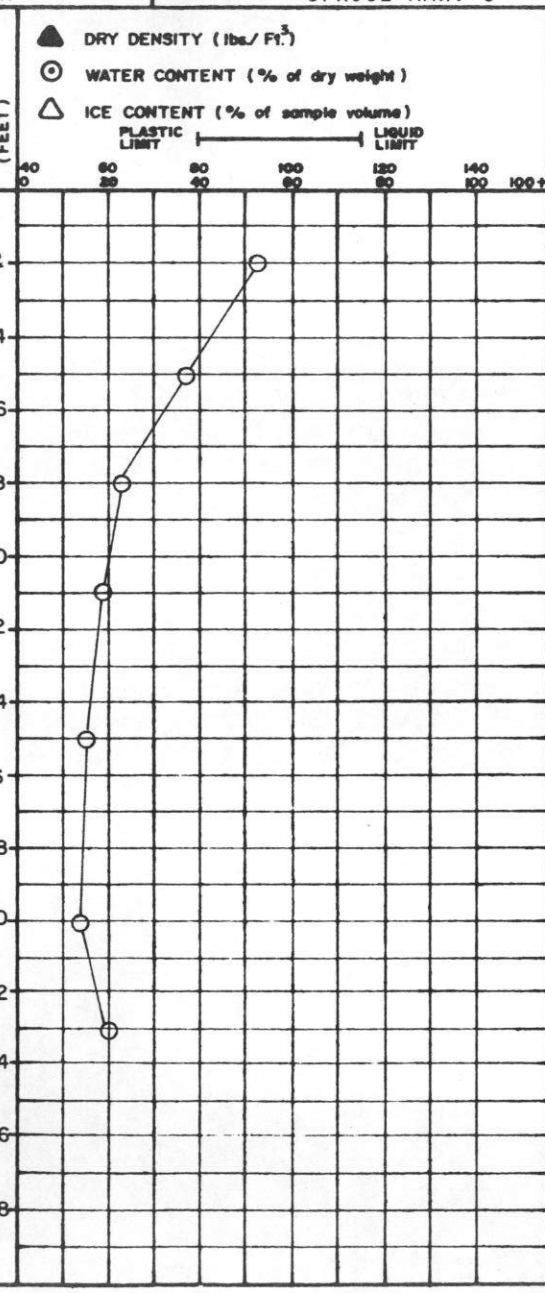
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A 22968-42	CHAINAGE. 1491+00	OFFSET.	TEST HOLE 3
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 5"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT 9"		High		
2						CLAY -Sandy Silty Shale fragments Med. plastic		Ice	Free Water	
4								Vs		
6					CI			Moderate	Wet	
8								Ice	Moist	
10							F	Vc - Vr	Moist	
12										
14								Low		
16								Ice	Damp	
18										
20									Damp	
22										
24									Damp	
						25'				
26						BOTTOM OF HOLE 25' ?				
28										



GRAIN-SIZE ANALYSIS: CLAY % | SILT % | SAND % | GRAVEL %

DS-14-5-74 b

BORROW PIT 24

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

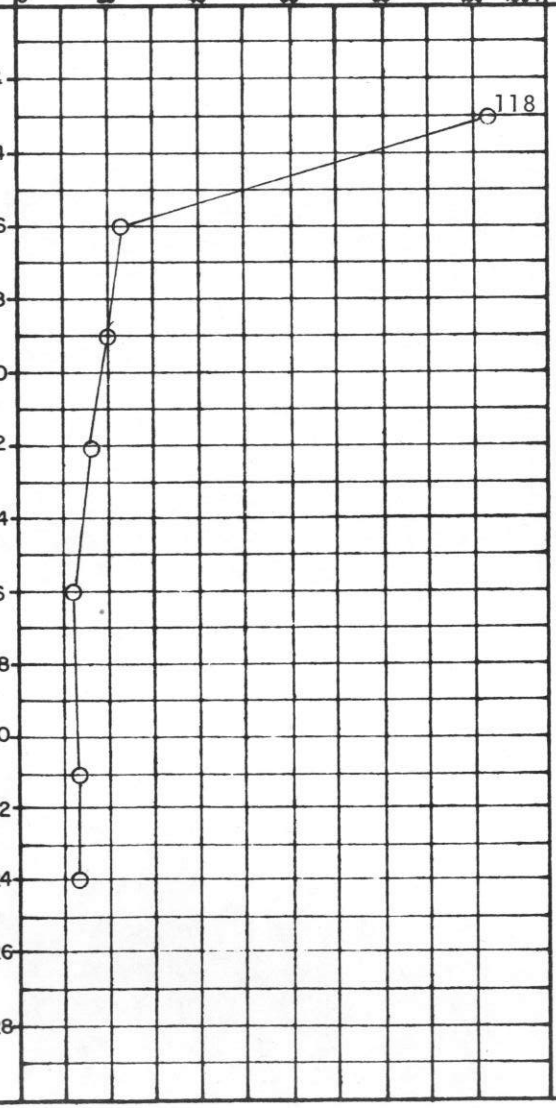
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22968-42	CHAINAGE. 1491+00	OFFSET.	TEST HOLE 4
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 6"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						1.3'		High Ice
2						CLAY		Vs
						-Organic to 4'		
						Silty		
4						Pebbles		Moderate
						Sandy		
6						Med. plastic		Ice
					CI			
8								Vc - Vr
10							F	
								Low
12						Shale fragments		
14								
16								Ice
18								
								Vx
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Moist	
				Damp	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 25

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

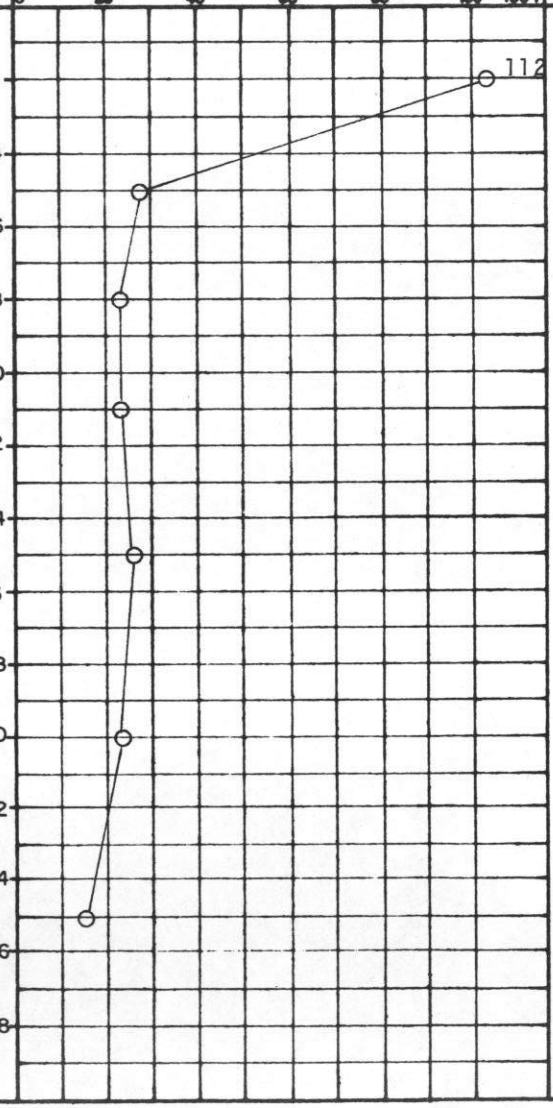
FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22968-42	CHAINAGE. 1522+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR - LEVEL	VEGETATION. SPRUCE	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High Ice
2						CLAY		Vs
4						-Organic to 3'		
6						Sandy		Moderate
8						Silty		
10					CI	Pebbles	F	Ice
12						Med. plastic		
14						ICE		ICE
16						As Above		Vc - Vr
18						ICE		ICE
20						As Above		
22								
24								
26						26'		
28						BOTTOM OF HOLE - 26'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS

CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT	REMARKS
Free Water	
Wet	
Moist	
Wet	
Wet	
Wet	
Damp	

DS-14-5-74 b

BORROW PIT 25

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 3/12/73	AIRPHOTO NO. A22968-42	CHAINAGE. 1522+00	OFFSET.	TEST HOLE 2
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR - LEVEL	VEGETATION. SPRUCE	ELEV.	MILE

DRY DENSITY (lbs./ Ft.³) ▲
WATER CONTENT (% of dry weight) ⊙
ICE CONTENT (% of sample volume) △
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 160+
0 20 40 60 80 100 120

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1.5'		High Ice					Free Water	
2						CLAY -Organic to 3' Sandy Silty Pebbles Low-med. plastic		Vs					Sat.	
6								Moderate						
8					CL								Wet	
10					CI		F	Ice					Moist	
12														
14													Moist	
16								Vc.- Vr						
18														
20						Cobbles @ 20'		Low Ice					Damp	
22														
24								Vx					Damp	
26						26'								
28						BOTTOM OF HOLE - 26'								

DS-14-5-74 b

BORROW PIT 25

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 3/12/73 | AIRPHOTO NO. A 22968-42 | CHAINAGE. 1522+00 | OFFSET.

TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE | ELEV.

TEST HOLE 3

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		
2					CI	CLAY -Sandy Silty Shale fragments Pebbles Med. plastic	F	Moderate Ice Vc - Vr
10						— 11'		
12					CI	CLAY -Sandy Silty Med. plastic Cobbles from 18'		Low Ice Vx
26						— 26'		
28						BOTTOM OF HOLE - 26'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DEPTH (FEET)	RELATIVE THAWED MOISTURE CONTENT
2	Moist
6	Moist
8	Moist
12	Moist
16	Moist
20	Moist
26	Moist

REMARKS

DS-14-5-74 b

BORROW PIT 26

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A22967-36 | CHAINAGE. 1859+00 | OFFSET.

TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. FAIR to WEST | VEGETATION. SPRUCE | ELEV.

TEST HOLE 1 | MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Moderate
2'								
4						CLAY -Organic to 3' Sandy Silty		Ice
6					CL	Pebbles Low-med. plastic		
8					CI			
10							F	Vc - Vr
11'								
12					SC	SAND -Clayey Silty		
14								
16					SM	Silty		High
18								
20								Ice
22					SC	Clayey Silty		Vs
24								
26					ML	SILT -Clayey		
26'								
28						BOTTOM OF HOLE - 26'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Damp
4					
6					Moist
8					Moist
10					
12					Wet
14					
16					Sat.
18					
20					Free Water
22					
24					
26					Sat.
28					

REMARKS

DS-14-5-74 b

BORROW PIT 26

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A22967-36	CHAINAGE. 1859+00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE - WILLOWS	ELEV.	MILE

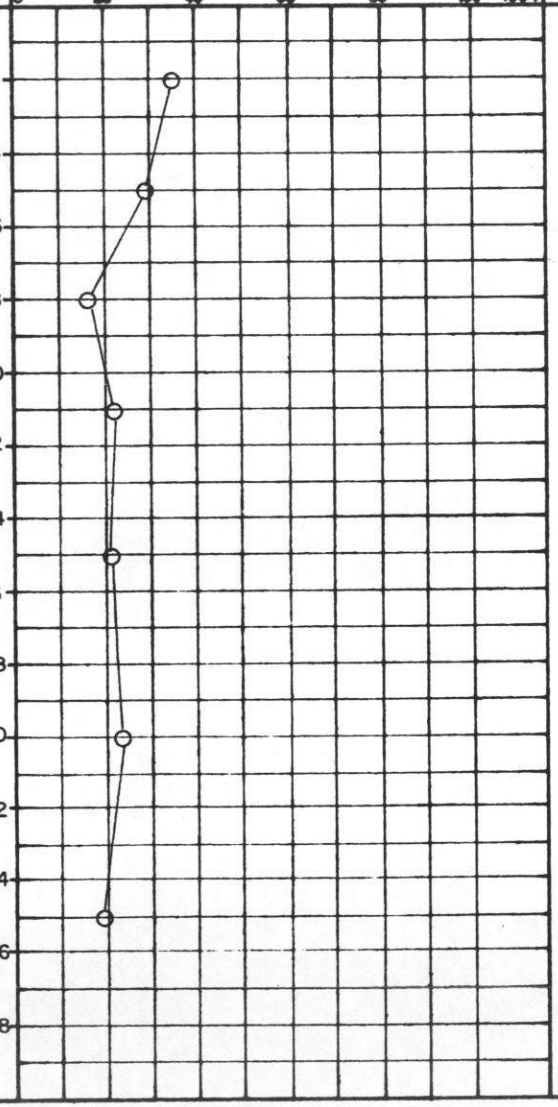
DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		Moderate
						2'		
4					CL	CLAY -Silty Low plastic		&
6								
						7.5'		High
8					SM	SAND -Silty Medium		
10								Ice
						Fine silty	F	
12								
14								Vc - Vr
						Med. Silty		
16					SM			
18								Vs
20								
22								
24					SM	Fine silty		
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Sat.	
				Wet	
				Sat.	
				Sat.	
				Sat.	
				Free Water	
				Moist	

DS-14-5-74 b

BORROW PIT 26

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

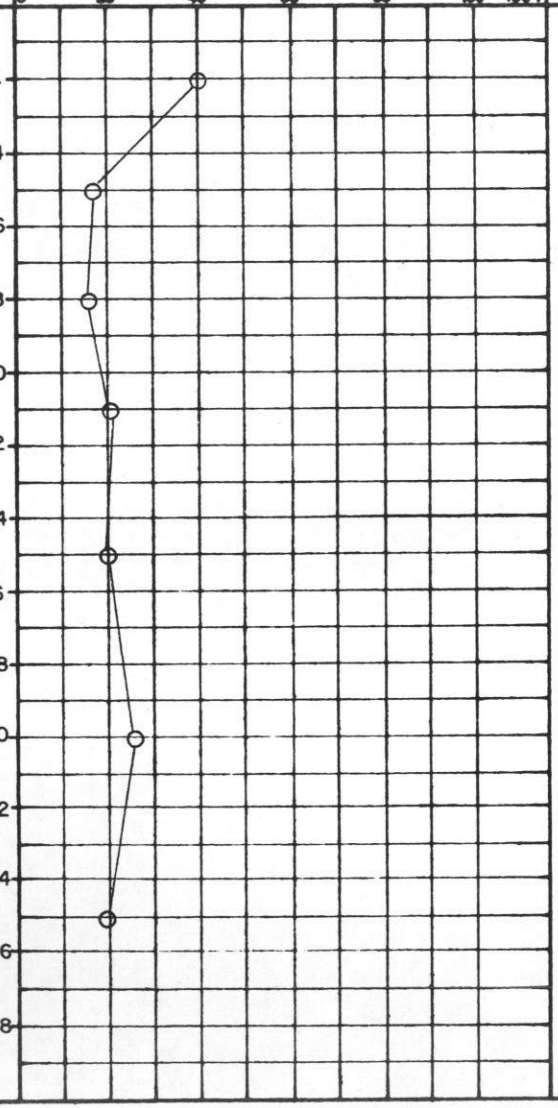
FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A22967-36	CHAINAGE. 1859+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR TO WEST	VEGETATION. SPRUCE - WILLOWS	ELEV.

TEST HOLE 4

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT			
2						2'			Wet
4					CL	CLAY -Organic to 3' Sandy Silty		Moderate	Wet
6						6'			
8						SAND -Silty fine		Ice	Wet
10					SM	Silty Med.	F	Vc - Vr	Moist
12									
14									Wet
16					SM	Silty fine			
18									
20						Silty med.			Sat.
22									
24					ML	SILT -Sandy			Wet
26						26'			
28						BOTTOM OF HOLE - 26'			



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 1
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	[redacted] PEAT			Free Water
0.9'									
2						CLAY -Silty Med. to high plastic			
4					CI			Vs	Moist
6									
8									Sat.
10					CH		F		
12								High	Sat.
14								Ice	
16									Wet
18					CH				
20								Vs	Sat.
22									
24					CH				Sat.
25'									
26						BOTTOM OF HOLE - 25'			
28									

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 80 140 100 100+

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %

REMARKS

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 5/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1931+00 | OFFSET.

TECH. McINTOSH | RIG. MAYHEW - #2 | SURFACE DRAINAGE. | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 2

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
1.1'								
2					CI	CLAY -Sandy Silty Pebbles to gravelly Med. plastic		Vs
4								Moderate Ice
6								Vc - Vr
8							F	Low Ice
10								
11'								
12					CI	CLAY -Sandy Silty 15-40% Shale fragments Med. plastic		Vx
14								
16								
18								
20								
20'								
22					SW	SAND -Gravelly None plastic		
24								
25'								
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	0	20	40	60	80	100	120	140	160	180+
2										
4										
6										
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										

GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
					Sat.
					Moist
					Damp
					Humid
					Humid
					Damp
					Damp

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

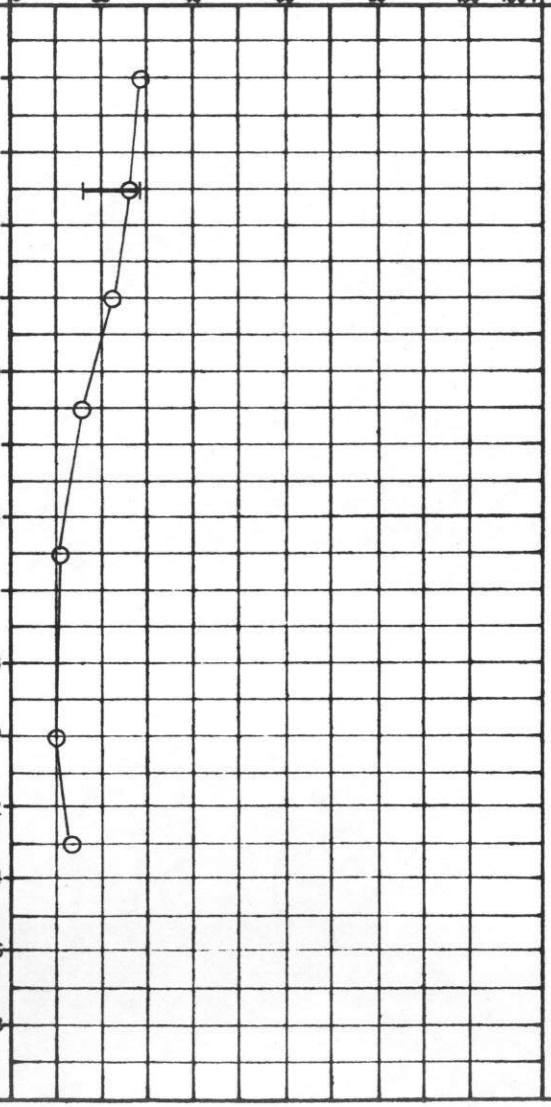
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 3
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 7"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Moderate
						1.1'		
2						CLAY		Ice
						-Sandy		
4					CL	Silty		
						3-15% Sandstone fragments		Vc - Vr
6						Low to med plastic		
					CI			
8								Low
10								
12							F	Ice
14								
								Vx
16								
18								
20						20'		
						SAND		
22						-Gravelly		
					SW			
24						SAND		
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Sat.	
4					Wet	
8					Damp	
10					Damp	
16					Humid	
20					Damp	
22					Damp	

DS-14-5-74 b

BORROW PIT 27

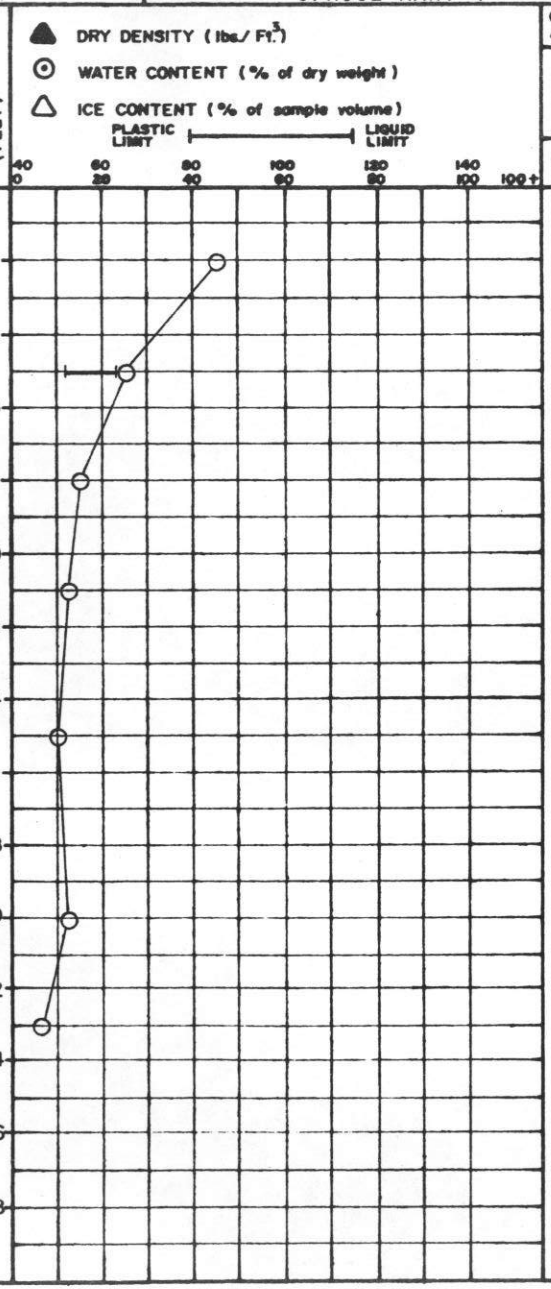
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 4
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1.0'		High Ice Vs
2						CLAY -Sandy Silty Few Sandstone fragments		
4					CI	Low plastic		Moderate Ice Vc - Vr
6						— 7'		
8						SAND -Silty Few Sandstone fragments	F	Low Ice Vx To
10								
12								
14						Possible Sandstone		
16					SM			Frozen Nbn
18								
20								
22						30% Sandstone fragments at 23'		
24						— 25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Moist	
				Damp	
				Damp	
				Damp	
				Humid	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 5
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE MAX. 4"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		
						.6'		
2						CLAY -Silty Med. plastic		
4								Vs
6								
8					CI			High
10							F	Ice
12								
14								Moderate
16					CH	High plastic		Ice
18								Vc - Vr
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 0 | 60 20 | 80 40 | 100 60 | 120 80 | 140 100 | 100+

116.3

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Free Water	
				Free Water	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 27

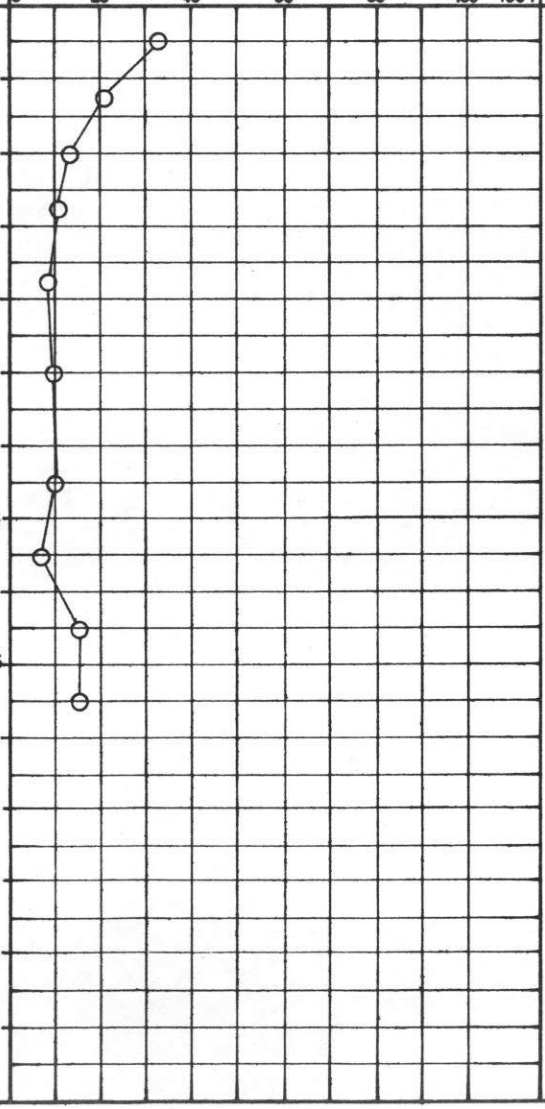
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 5/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 6
TECH. McINTOSH	RIG. MAYHEW - #2	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE MAX. 7"	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
					Pt	PEAT — 1'		High Ice Vs	Sat.
4					CL CI	CLAY -Sandy, silty Pebbles Low plastic — 7'		Moderate Ice Vc - Vr	Damp
8									Damp
12						SHALE -Silty Soft to med. hard	F	Low Ice	Damp
16								Vx	Damp
20						— 20'			Humid
24					SM	SAND -Silty Pebbles Possible soft Sandstone		To Frozen	Humid
28								Nbn	
32						— 33'			Humid
36						SHALE -Med. hard			Damp
40						— 40'			Damp
44						BOTTOM OF HOLE - 40'			
48									
52									
56									



GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

REMARKS

DS-14-5-74 a

BORROW PIT 27

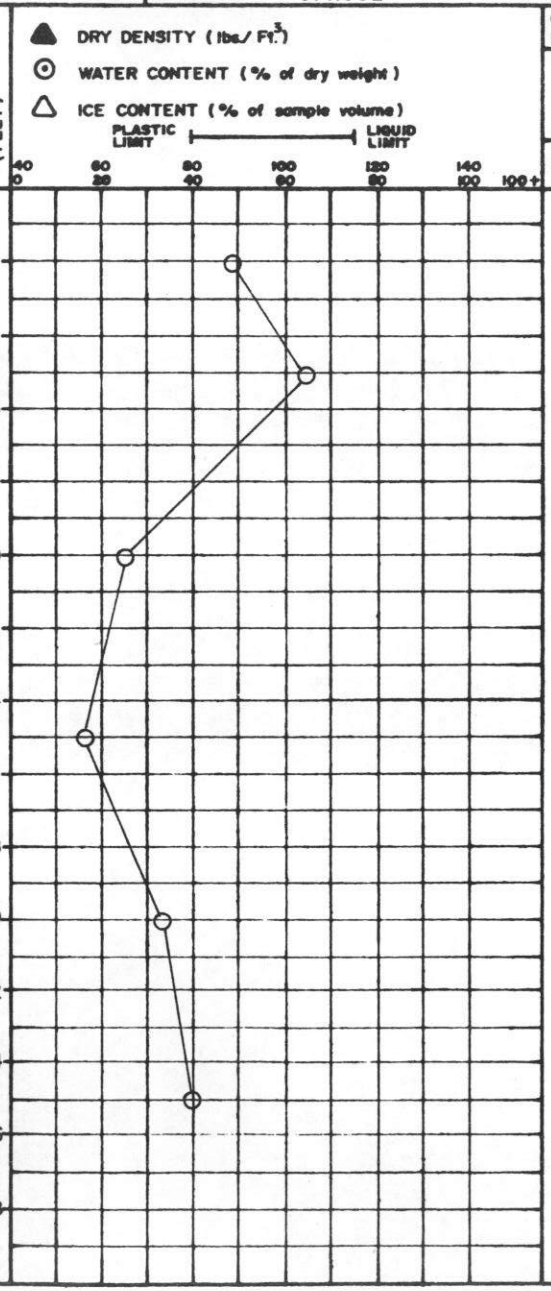
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 7
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT		High					Free Water	
						1½'								
2						CLAY		Ice						
4						-Sandy Silty Pebbles & Shale fragments							Free Water	
6					CL	Med & low plastic		Vs						
8								Moderate						
10					CI		F	Ice					Moist	
12														
14								Vc - Vr						
16													Damp	
						17'								
18						SAND -Silty		High						
20					SM	Possible Sandstone							Free Water	
22								Ice						
24								Vs					Free Water	
26						26'								
28						BOTTOM OF HOLE - 26'								



DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

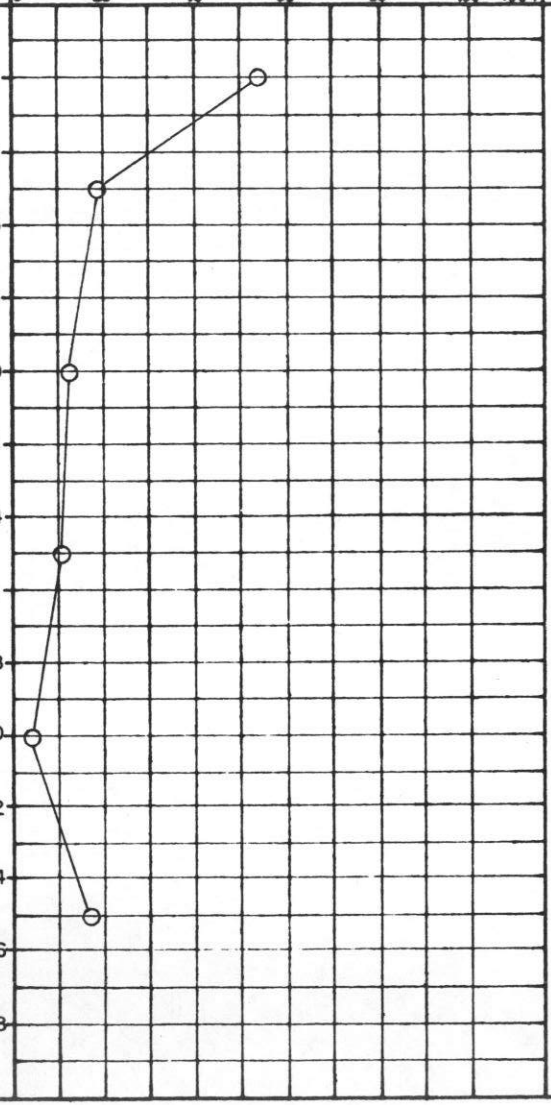
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 8
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. GOOD	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	High Ice
						2½'		
					CI	CLAY-Sandy, silty Pebbles Med. plastic		Moderate Ice
						5'		Vc - Vr
					SC	SAND - SANDSTONE -Soft Clayey 5'-10' Silty None plastic		
					SM			Low Ice
					SM			Vx
						23'		
					ML	SILT-Clayey Shale fragments		
						25'		
						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water
				Wet
				Moist
				Moist
				Damp
				Damp

REMARKS

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 7/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1931+00 | OFFSET.

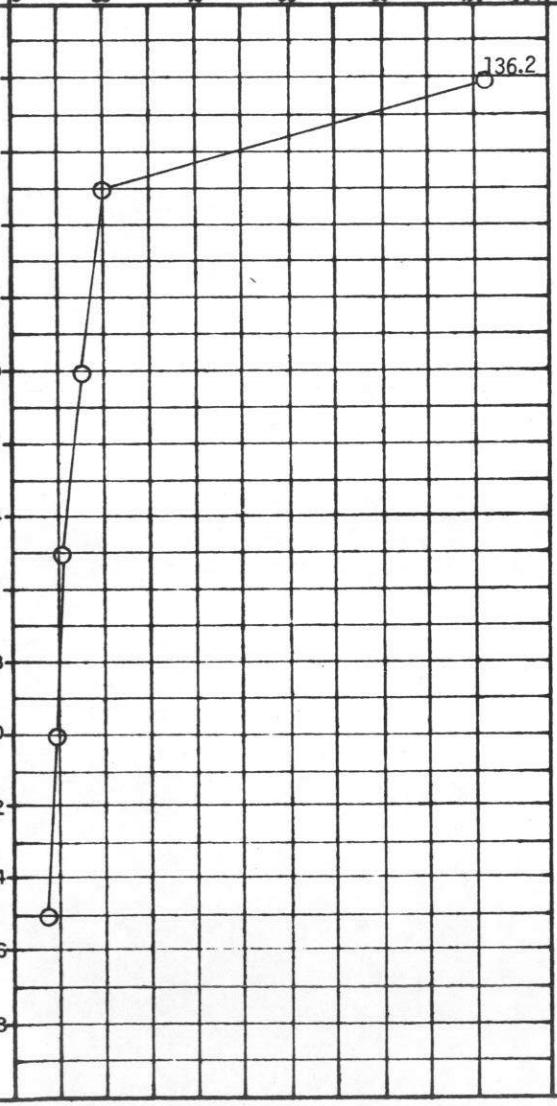
TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. FAIR | VEGETATION. SPRUCE | ELEV.

TEST HOLE 9

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT		Vs
						1½'		ICE
2						CLAY		
						-Sandy		
						Silty		
4						Shale fragments		Moderate
						(hard)		
					CL	from 10'-12'		Ice
6						Low-med. plastic		
8								Vc - Vr
					CI			
10							F	
						Approx: 12'		Low
12								
						SHALE		Ice
14						-Silty		
						Med. hard		Vx
16								
18								
						19'		
20						SAND		
						-Silty		
						Possible Sandstone		Frozen
22					SM			
								Nbn
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY	SILT	SAND	GRAVEL		
%	%	%	%		
				Free Water	
				Moist	
				Damp	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

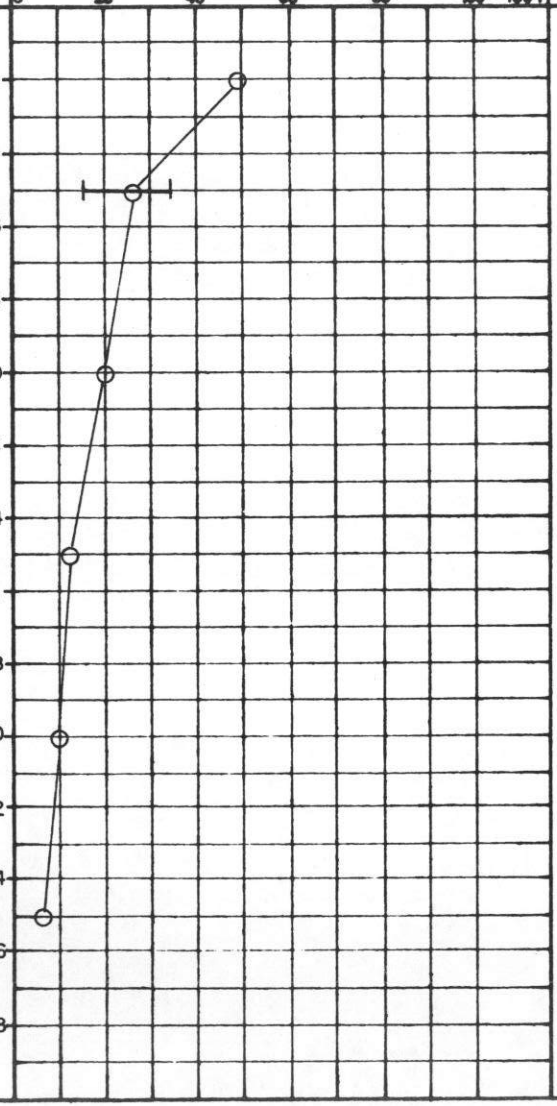
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 10
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		High Ice
						2½'		Vs
4						CLAY -Sandy Silty Shale fragments from 10'-15' Med. plastic		Moderate
6								Ice
8					CI			
10							F	Vc - Vr
12								
14						14'		
16						SHALE -Soft Silty		Low
18								Ice
20								To
22								Frozen
24						24'		Nbn
26					SM	SAND or SANDSTONE 25'		
28						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Sat.	
4					Moist	
10					Moist	
16					Damp	
20					Damp	
26					Damp	

DS-14-5-74 b

BORROW PIT 27

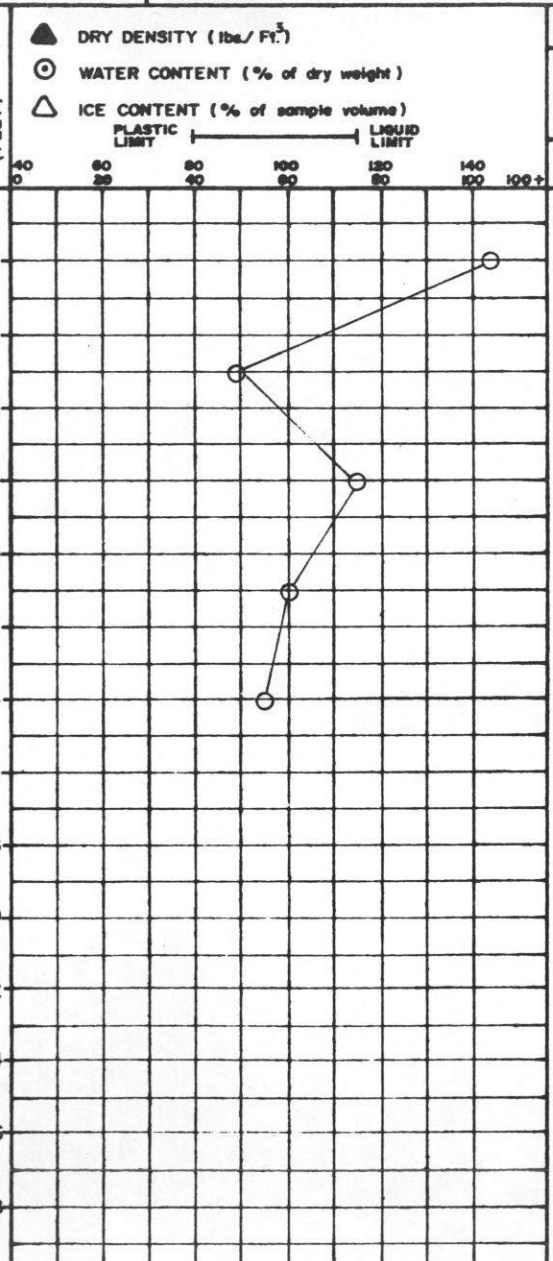
DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 12
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
					Pt	PEAT								
						1½'								
2					CH	CLAY -Silty High plastic	F	High					Free Water	
4								Ice					Moist	
6														
8								Vs					Wet	
10														
12													Wet	
14						14'							Wet	
16						BOTTOM OF HOLE - 14'								
18														
20														
22														
24														
26														
28														



DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

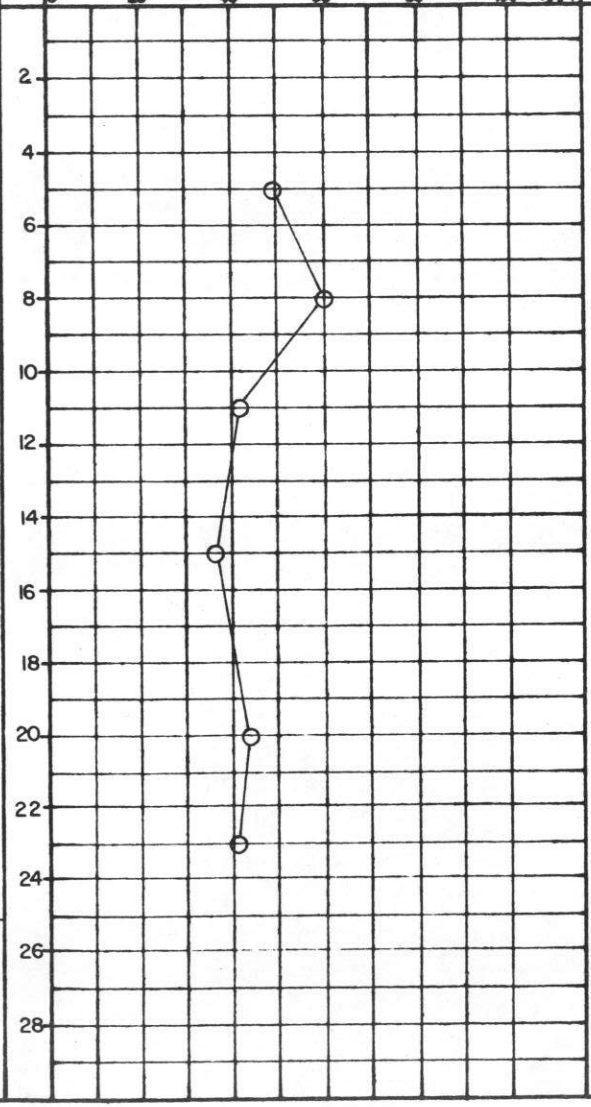
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 13
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		Vs
2						CLAY -From 5' Silty Med. to high plastic		ICE
4								
6								High
8					CI			Ice
10								Vs
12					CH		F	Moderate
14								
16								Ice
18								
20								Vc - Vr
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Wet	
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

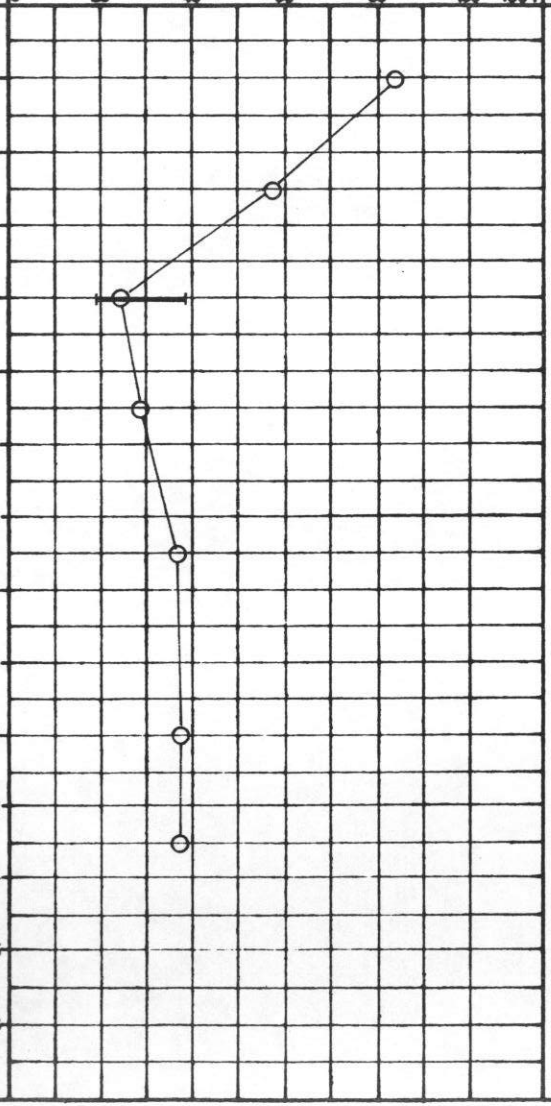
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 14
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		High
2						CLAY		Ice
4						-Silty		
6					CL	Low to high plastic		Vs
8								Moderate
10							F	Ice
12					CI			
14								Vc - Vr
16								
18								
20					CH			
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
4					Free Water	
8					Moist	
10					Moist	
14					Moist	
20					Moist	
22					Moist	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 16
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — 1'		
2					CI	CLAY -From 5' Sandy Silty Med. plastic Sandstone fragments from 23'-25'	F	ICE High Ice Vs Moderate Ice Vc - Vr
4								
6								
8								
10								
12								
14								
16								
18						Med.-high plastic		
20								
22								
24						25'		
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140 100+
0 20 40 60 80 100

124.7
229.3
123.5

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Free Water	
				Free Water	
				Moist	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 7/12/73 | AIRPHOTO NO. A 22966-45 | CHAINAGE. 1931+00 | OFFSET.

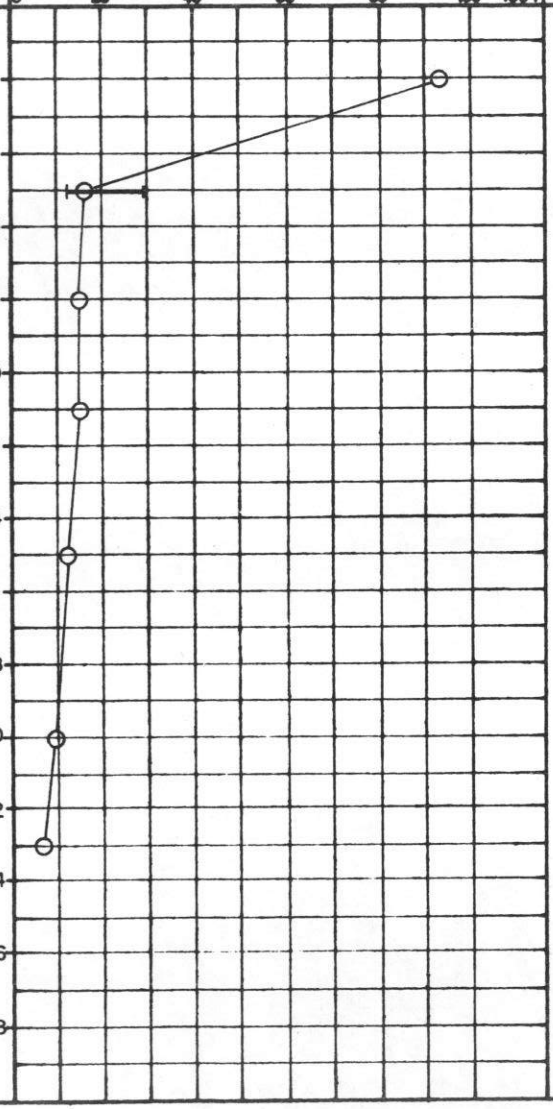
TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

TEST HOLE 17

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
1'								
2					CI	CLAY -Sandy Silty Pebbles Med. plastic	F	Vs
4								Low
6								
8								Ice
10								
12								Vx
14								
15'								
16					ML	SILT -Clayey Sandy Sandstone frags.		
18								
19'								
20					SM	SAND or SANDSTONE -Silty		Frozen
22								Nbn
24								
25'								
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Moist	
				Moist	
				Damp	
				Damp	
				Damp	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.	TEST HOLE 18
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 1'		High
2						CLAY -Sandy Silty Soft Silt and Sandstone frags. Med. plastic		Ice
4								
6								Vs
8					CI			
10							F	
12								Low
14								Ice
16						— 15'		
18						SHALE -Soft with Siltstone & Sandstone frags.		Vx
20								
22						— 21'		
24					SM	SAND or SANDSTONE -Silty		Nbn
26						— 25'		Frozen
28						BOTTOM OF HOLE - 25'		

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

40 60 80 100 120 140
0 20 40 60 80 100 100+

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0						
2					Free Water	
4						
6					Sat.	
8					Moist	
10					Moist	
12						
14						
16					Damp	
18						
20					Damp	
22						
24					Damp	
26						
28						

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 8/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 19

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	High Ice
2'								
					CL	CLAY -Sandy Silty Soft shale Sandstone-Siltstone fragment Low to med plastic		Vs Low
					CI			Ice
15'								
					ML	SILT -Clayey Sandy Sandstone & Siltstone frags.		Vx
20'								
					SM	SAND -Silty Possible Sandstone		Nbn
25'						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Free Water	
4					Moist	
8					Moist	
10					Damp	
15					Damp	
20					Damp	
25					Damp	

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

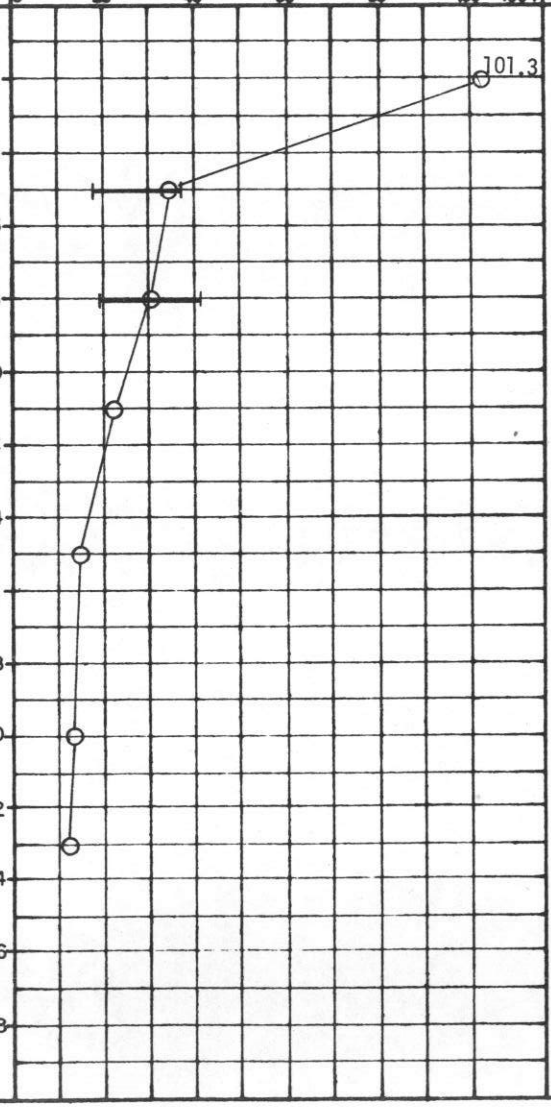
FIELD ENG. B. CONSTANT	DATE DRILLED. 8/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 20

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
2						2'		
4					CI	CLAY -Sandy Silty Fragments of Siltstone Med. plastic	F	Vs
6								Moderate Ice
8								
10								Vc - Vr
12								
14								Low Ice
16								
18								
20								Vx
21						21'		
22						SAND -Sandstone fragments		
24								
25						25'		
26						BOTTOM OF HOLE - 25'		
28								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water
				Wet
				Moist
				Moist
				Damp
				Damp
				Damp

DS-14-5-74 b

BORROW PIT 27

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

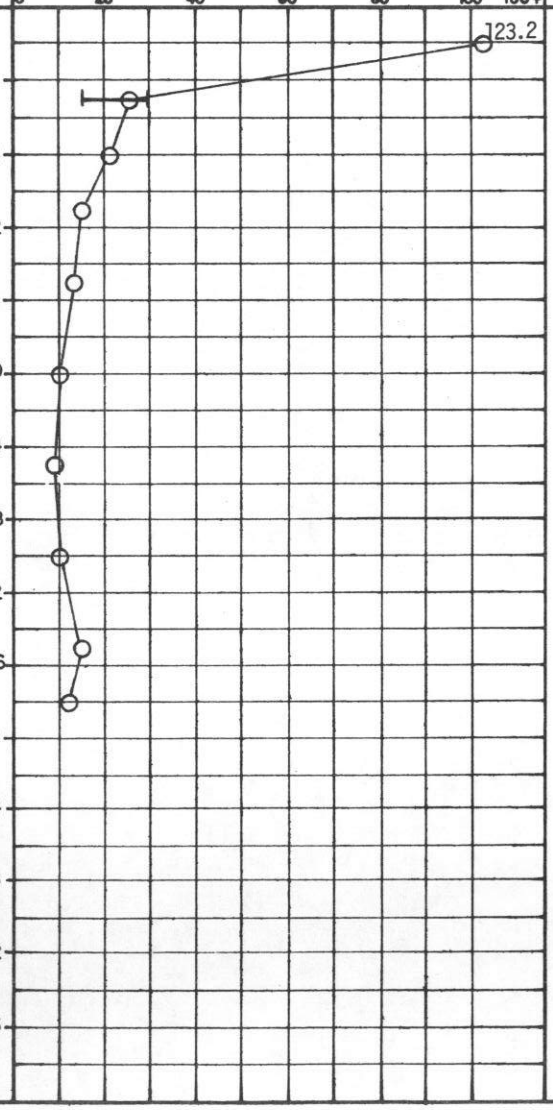
FIELD ENG. B. CONSTANT	DATE DRILLED. 8/12/73	AIRPHOTO NO. A 22966-45	CHAINAGE. 1931+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 21

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
2'								
4					CI	CLAY -Organic to 4' Silty Med. plastic		Vs
8								Low
11'							F	
12					CI	CLAY -Sandy, silty 10-15% Shale & Sandstone frags. Med. plastic		Ice Vx
16								
19'								
20					SM	SAND -Silty		Frozen
24								
28						Sandstone ?		
32								Nbn
35'								
36						SHALE -Soft		
40'								
40						BOTTOM OF HOLE - 40'		
44								
48								
52								
56								



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water
				Wet
				Moist
				Damp
				Damp
				Damp
				Damp
				Damp
				Damp
				Damp

DS-14-5-74 a

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

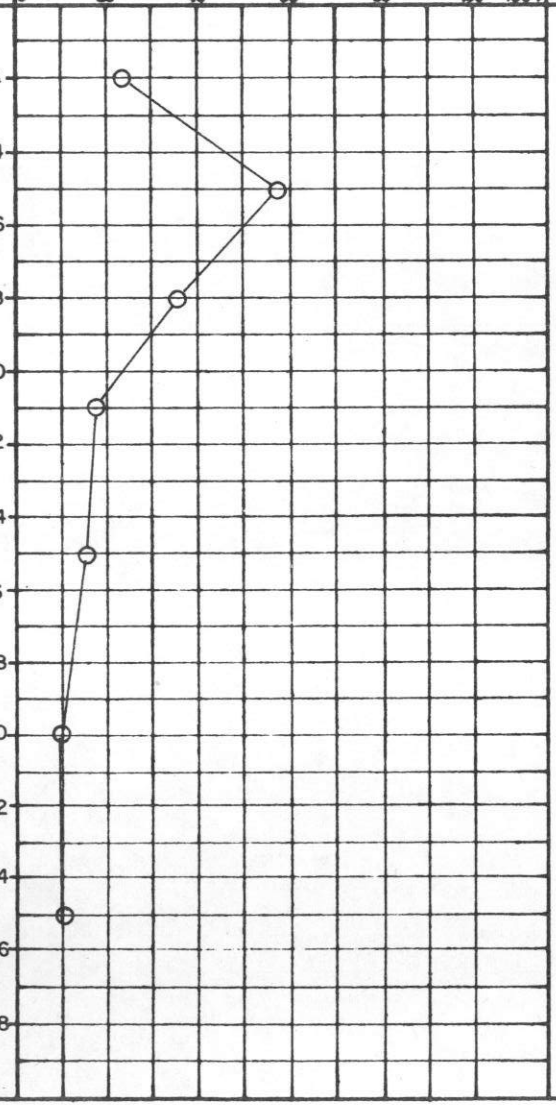
FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT	F	Moderate Ice Vc - Vr
						2'		
4					CI	CLAY -Sandy Silty Pebbles Med. plastic Cobbles from 3'		Vs
6								High Ice
8								High Ice Vc - Vr
10								Low
						11'		
12						SHALE -Silty Soft		Ice
14								Vx
16								
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Moist	
				Free Water	
				Moist	
				Damp	
				Humid	
				Humid	
				Humid	

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.

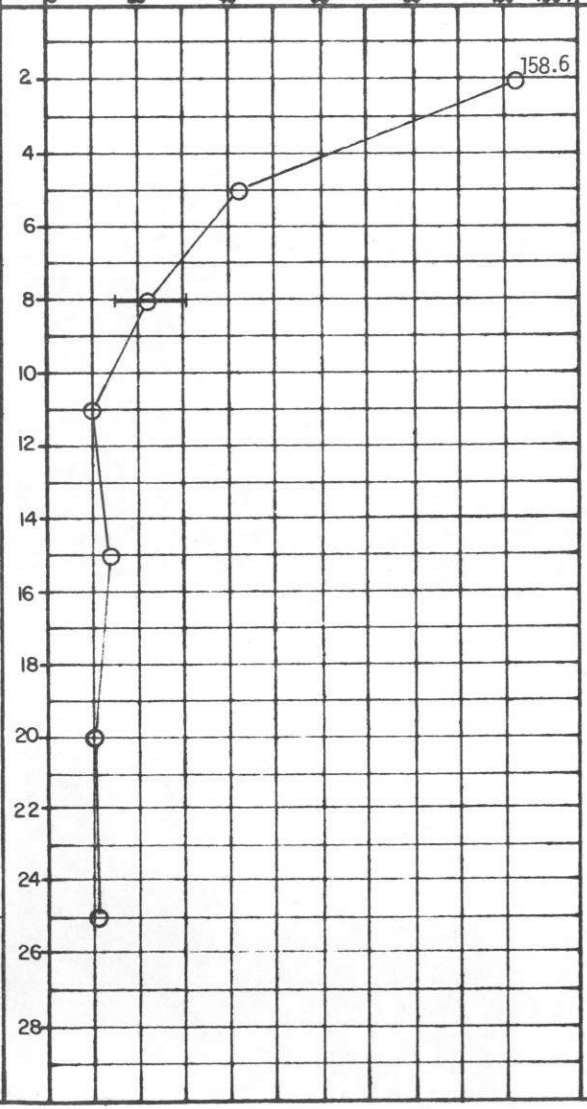
TEST HOLE 2

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		High Ice
2					CI	CLAY -Sandy Silty Pebbles Med. plastic Cobbles from 8'	F	Vs
8								Moderate Ice
10						— 11'		Vc - Vr
12						SHALE -Soft to hard		Low Ice
18								Vx
25						— 25'		
26						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT
2					Free Water
4					Free Water
8					Moist
10					Damp
14					Humid
20					DAMP
24					DAMP

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

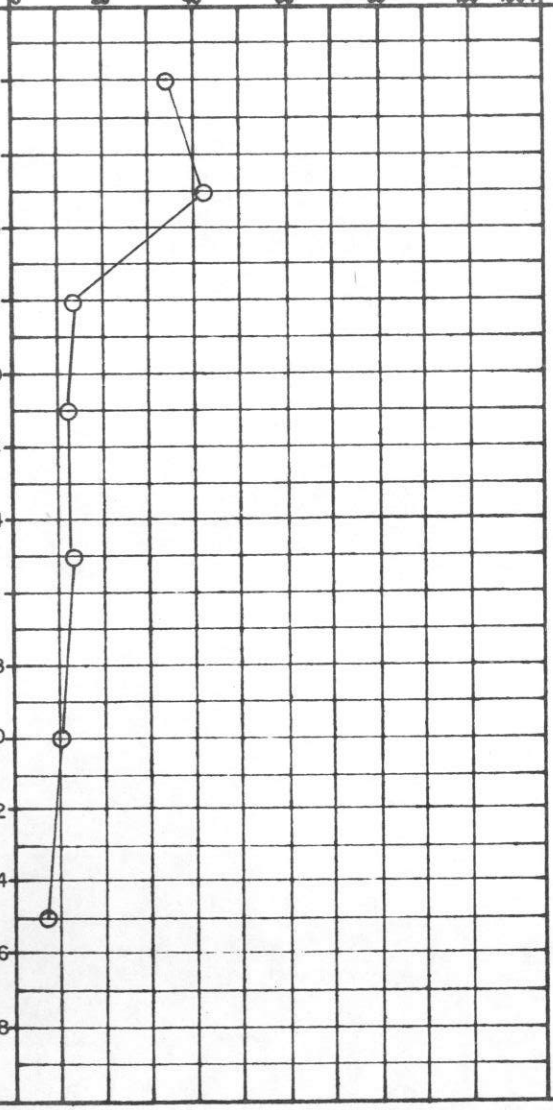
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR	VEGETATION. SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT	F	High Ice
2						2'		
4					CI	CLAY -Sandy Silty Pebbles Med. plastic Cobbles from 8'		Vs
6								
8								Vx
10								
12								Low Ice
14								
16								
18								
20								Vx
22								
24						SHALE at 25'		
26								
27						27'		
28						BOTTOM OF HOLE - 27'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Sat.	
4					Sat.	
8					Damp	
10					Damp	
14					Damp	
20					DAMP	
24					Humid	

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 4

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	RELATIVE THAWED MOISTURE CONTENT
0					Pt	PEAT — .5'			Free Water
2						CLAY		Vs	
4					CI	-Sandy Silty Pebbles Med. plastic		High	Free Water
6								Ice	
8						— 8'		Low	Damp
10						SHALE -Soft to hard	F	Ice	Damp
12								Vx	
14									Humid
16								Frozen	
18								Nbn	
20									Moist
22									
24						— 25'			DAMP
26						BOTTOM OF HOLE - 25'			
28									

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 60 80 100 120 140 100+
0 20 40 60 80 100

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. | CHAINAGE. 1674+00 | OFFSET.

TECH. BAINE | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. | ELEV.

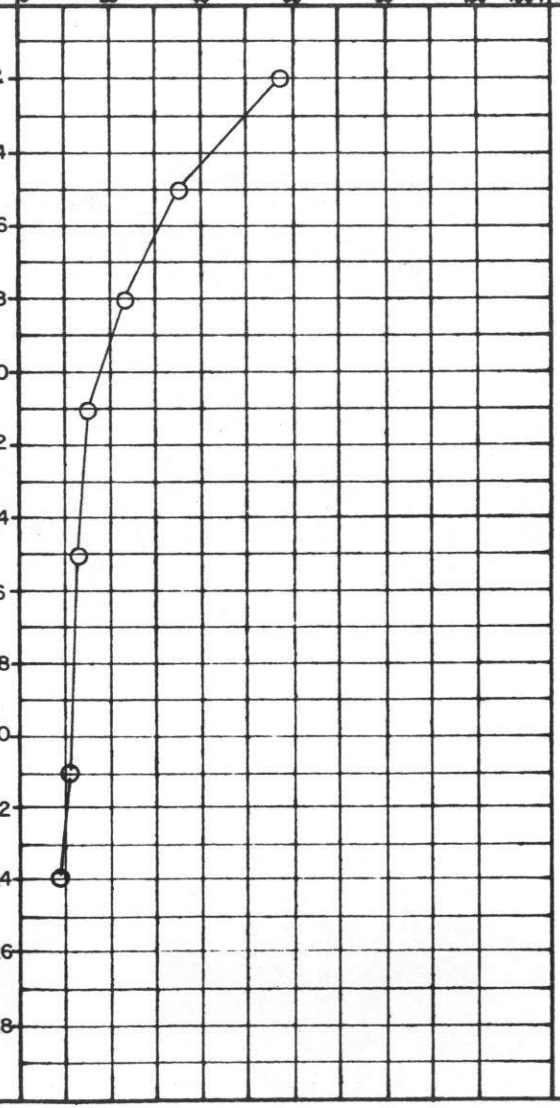
TEST HOLE 5

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
						.5'		
2					CI	CLAY -Sandy Silty Pebbles Med. plastic		Vs Moderate Ice
4								
6								
8						7½'		
						SHALE -Silty Soft		Vc - Vr
10								
12							F	Low Ice
14								
16								Vx
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water
				Wet
				Damp
				Damp
				Damp
				DAMP
				DAMP

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT | DATE DRILLED. 4/12/73 | AIRPHOTO NO. | CHAINAGE. 1674+00 | OFFSET.

TECH. PRONYCH | RIG. MAYHEW - #1 | SURFACE DRAINAGE. | VEGETATION. SPRUCE MAX. 4" | ELEV.

TEST HOLE 6

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
1'								
2					CI	CLAY -Silty Med. plastic	F	Vs
4								
6								Moderate Ice
8								
10								
11'								
12						SHALE -Soft		Vc - Vr
14								
16								Low Ice
18								
20								
22								Vx
24								
26								
26'						BOTTOM OF HOLE - 26'		
28								

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET) 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28

40 60 80 100 120 140 100+
0 20 40 60 80 100

126.7

GRAIN-SIZE ANALYSIS	CLAY	SILT	SAND	GRAVEL
	%	%	%	%

RELATIVE THAWED MOISTURE CONTENT	REMARKS
Free Water	
Wet	
Wet	
Damp	
Damp	
DAMP	
DAMP	

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

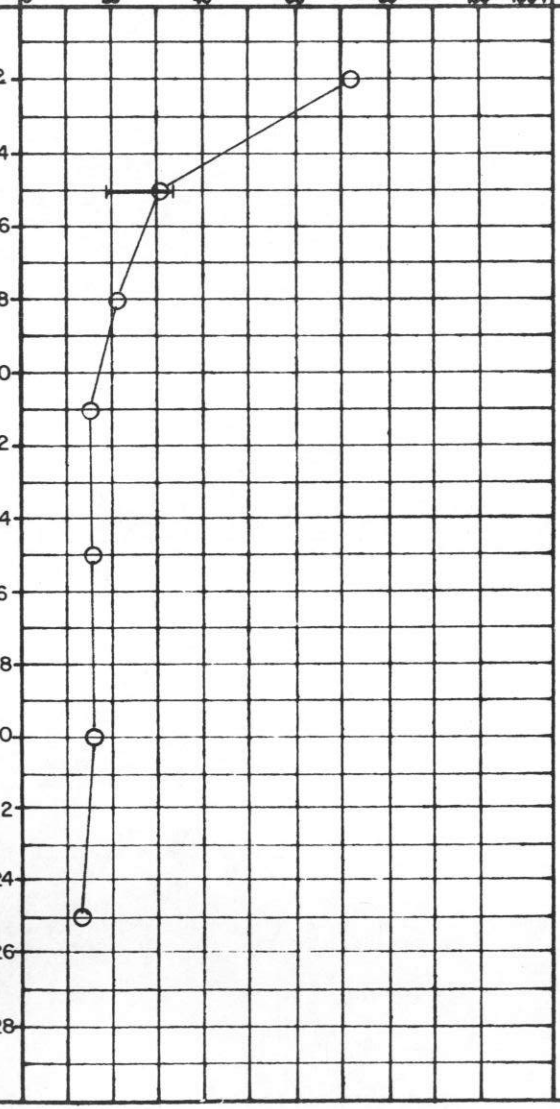
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.	TEST HOLE 7
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION. WILLOWS FEW SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		Ice Lense 18"-24" Vs High Ice
						1.5'		
2					CI	CLAY -Sandy Silty Pebbles Med. plastic		
4								
6								
						7½'		
8						SHALE -Soft to med. hard		Low Ice
10							F	
12								Vx
14								
16								
18								
20								
22								
24								
26						26'		
						BOTTOM OF HOLE - 26'		
28								

DRY DENSITY (lbs./ Ft.³)
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Moist	
				Damp	
				Damp	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE	ELEV.

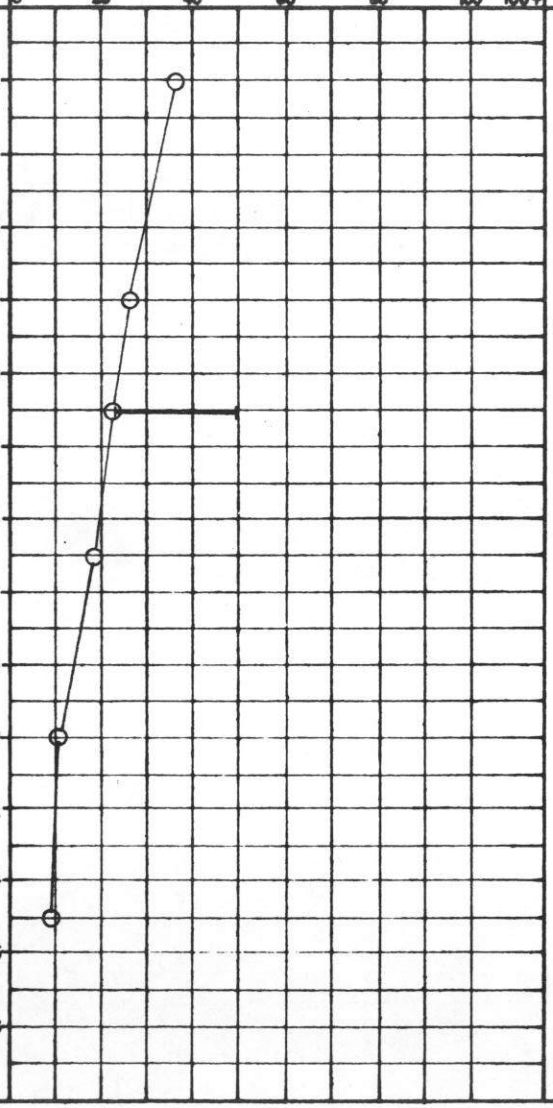
TEST HOLE 8

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT — 8"		High Ice Vs
2						CLAY -Sandy Silty Med. plastic Pebbles		
4								
6					CI			Moderate Ice
8								
10								Vc - Vr
12						— 11' SHALE -Soft		
14							F	Low Ice
16								
18								
20								Vx
22								
24								
26						— 26' BOTTOM OF HOLE - 26'		
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS	CLAY %	SILT %	SAND %	GRAVEL %

RELATIVE THAWED MOISTURE CONTENT
Sat.
Wet
Damp
Damp
Moist
DAMP

REMARKS

DS-14-5-74 b

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

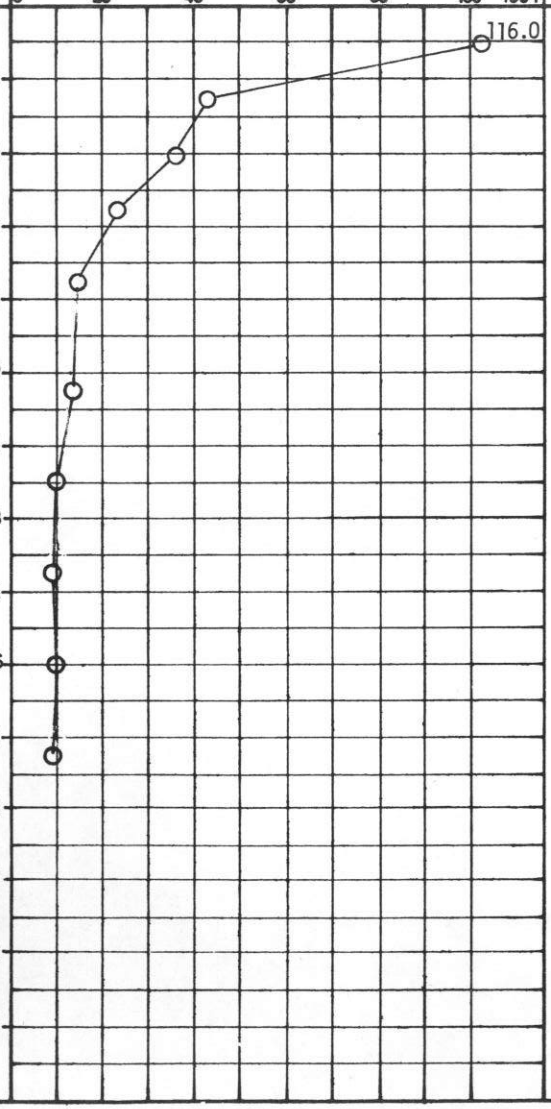
FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 9

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT — .5'		High Ice Vs
4						CLAY -Sandy, silty Shale fragments Med. plastic Boulders & pebbles from 4'-9' Possible soft Shale at 11'		
8					CI			
12						— 13'		Moderate Ice Vc - Vr
16						SHALE -Silty Soft	F	Low Ice Vx To Frozen Nbn
20								
24								
28						SOFT - MED. HARD		
32								
36								
40								
						— 42'		
44						BOTTOM OF HOLE - 42'		
48								
52								
56								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Sat.	
				Sat.	
				Damp	
				Damp	
				MOIST	
				DAMP	
				Humid	
				Humid	
				Humid	

DS-14-5-74 a

BORROW PIT 28

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 4/12/73	AIRPHOTO NO.	CHAINAGE. 1674+00	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

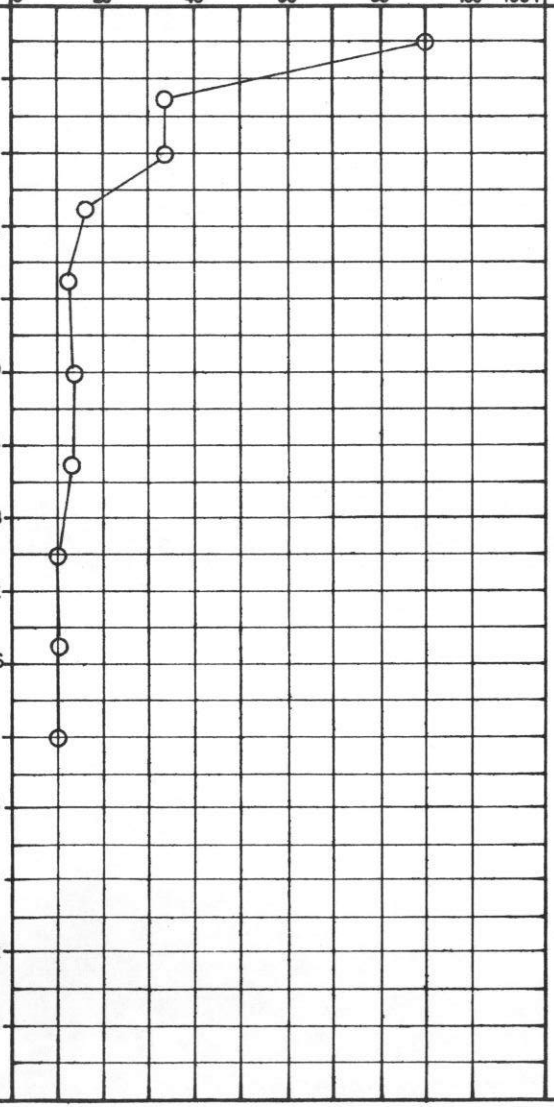
TEST HOLE 10

MILE

REMARKS

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
					Pt	PEAT		High Ice Vs
						.5'		
4					CI	CLAY -Sandy Silty Pebbles Low to med plastic		
8								Moderate Ice Vc - Vr
						10'	F	
12						SHALE -Soft to hard Hardness increasing with depth		
16								Low Ice Vx
20								
24								
28								To
32								Frozen
36								Nbn
40								
						42'		
44						BOTTOM OF HOLE - 42'		
48								
52								
56								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT
CLAY %	SILT %	SAND %	GRAVEL %	
				Free Water Free Water Moist Damp Damp Damp Damp Humid Humid Humid

DS-14-5-74 a

BORROW PIT 29

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

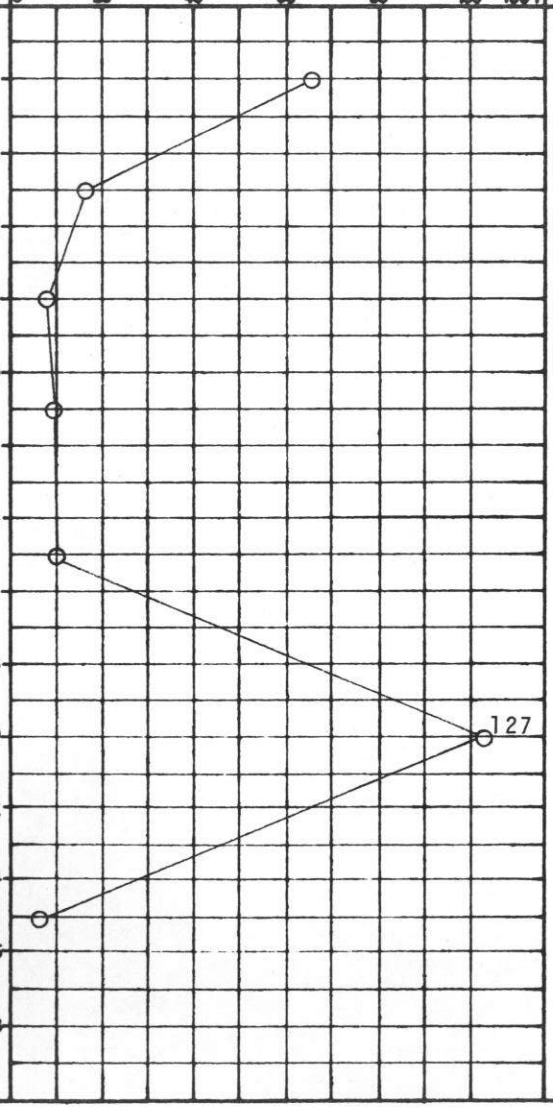
SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A22963-109	CHAINAGE. 2066+00	OFFSET.	TEST HOLE 1
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. BIRCH & SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
						1½'		
2					ML	SILT -Organic Clayey		Vs
4								
						5'		Low
6						CLAY -Silty Sandy Pebbles Gravelly Low-med. plastic		
8								
10					CL CI		F	Ice
12								
14								Vx
16								
18								
20						20'		High
22						GRAVEL -Silty Sandy		Ice
24					GP			Vs
								Low Ice
						25'		Vx
26						BOTTOM OF HOLE - 25'		
28								

▲ DRY DENSITY (lbs./ Ft.³)
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)

PLASTIC LIMIT — LIQUID LIMIT



DEPTH (FEET)	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Sat.	
6					Wet	
8					Wet	
12					Wet	
16					Wet	
20					Free Water	
24					Wet	

DS-14-5-74 b

BORROW PIT 29

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

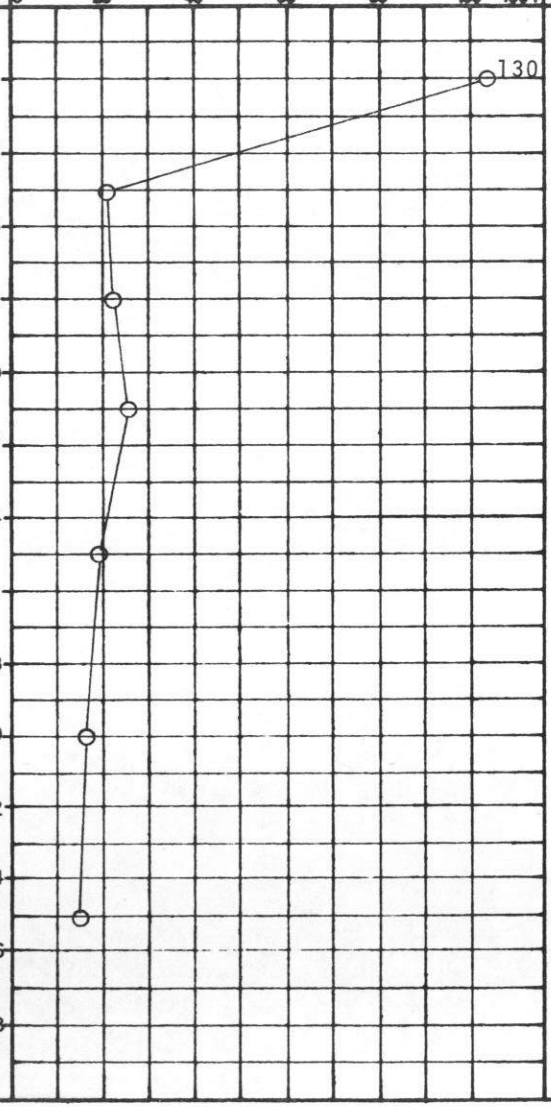
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A22963-109	CHAINAGE. 2066+00	OFFSET.	TEST HOLE 2
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. FAIR TO SOUTH	VEGETATION. BIRCH - SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		Moderate
						2.5'		
4					ML	SILT -Organic Sandy		&
						5'		
6						CLAY -Sandy Silty Pebbles Low plastic		High
8								
10								Ice
					CL		F	
12						Gravelly		Vc - Vr
14								
						15'		Vs
16					GP	GRAVEL -Silty Sandy		
18								
20						20'		
					CL	CLAY-Gravelly silty		
22						ICE		ICE
24					CI	CLAY -Silty sandy Pebbles		
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Wet	
				Free Water	
				Free Water	
				Wet	
				Wet	

DS-14-5-74 b

BORROW PIT 29

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A22963-109	CHAINAGE. 2066+00	OFFSET.	TEST HOLE 3
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. BIRCH - SPRUCE	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
2					Pt	PEAT		High Ice
						3'		Vs
4						CLAY -Organic to 4' Silty Sandy Pebbles		
6								Low
8								
10					CL		F	Ice
12					CI	Gravelly Low-med. plastic		
14								Vx
16								
18								
20								
22								
24								
						25'		
26						BOTTOM OF HOLE - 25'		
28								

DEPTH (FEET)

▲ DRY DENSITY (lbs./ Ft.^{3})
⊙ WATER CONTENT (% of dry weight)
△ ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

0 20 40 60 80 100 120 140 160 180+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	
				Sat.	
				Damp	
				Wet	
				Moist	
				Wet	
				Damp	

DS-14-5-74 b

BORROW PIT 29

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2066+00	OFFSET.	TEST HOLE 4
TECH. PRONYCH	RIG. MAYHEW - #1	SURFACE DRAINAGE. POOR	VEGETATION. SPRUCE - BIRCH	ELEV.	MILE

DRY DENSITY (lbs./Ft.³) ▲ — WATER CONTENT (% of dry weight) ⊙ — ICE CONTENT (% of sample volume) △ — PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT		Vs ICE Vs					Free Water	
						3'								
4					Cl	CLAY -Sandy Silty Pebbles Med. plastic	F	Moderate					Wet	
8								Ice					Moist	
10														
12								Vc - Vr					Moist	
14														
16													Moist	
						16'								
18					GC	GRAVEL -Clayey Sandy Silty		Low						
20								Ice					Wet	
22								Vx						
						23'								
24					ML	SILT -Clayey, sandy		High Ice Vs						
						25'								
26						BOTTOM OF HOLE - 25'							Sat.	
28														

DS-14-5-74 b

BORROW PIT 30

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 6/12/73	AIRPHOTO NO. A22963-109	CHAINAGE. 2111+56	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 1

MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	DEPTH (FEET)
2					Pt	PEAT — 1'		Moderate	2
4						CLAY -Silty		Ice	4
6					CL	Gravelly		Vc - Vr	6
8						Low plastic			8
10						ICE		ICE	10
12						GRAVEL -Silty Sandy	F	High	12
14									14
16					GP			Ice	16
18									18
20								Vs	20
22									22
24									24
26						— 25' BOTTOM OF HOLE - 25'	F		26
28									28

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Wet	Hole In Bag
				Free Water	Hole In Bag
				Free Water	
				Free Water	
				Wet	

DS-14-5-74 b

BORROW PIT 30

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2111+56	OFFSET.
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.

TEST HOLE 3

MILE

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
0					Pt	PEAT — 1'								
2						CLAY -Silty Med. to high plastic		High						
4													Wet	
6					CI			&						
8													Wet	
10							F	Moderate						
12					CH								Sat.	
14								Ice						
16								Vs					Sat.	
18														
20								Vc - Vr						
22														
24													Wet	
25						25'								
26						BOTTOM OF HOLE - 25'								
28														

DS-14-5-74 b

BORROW PIT 30

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

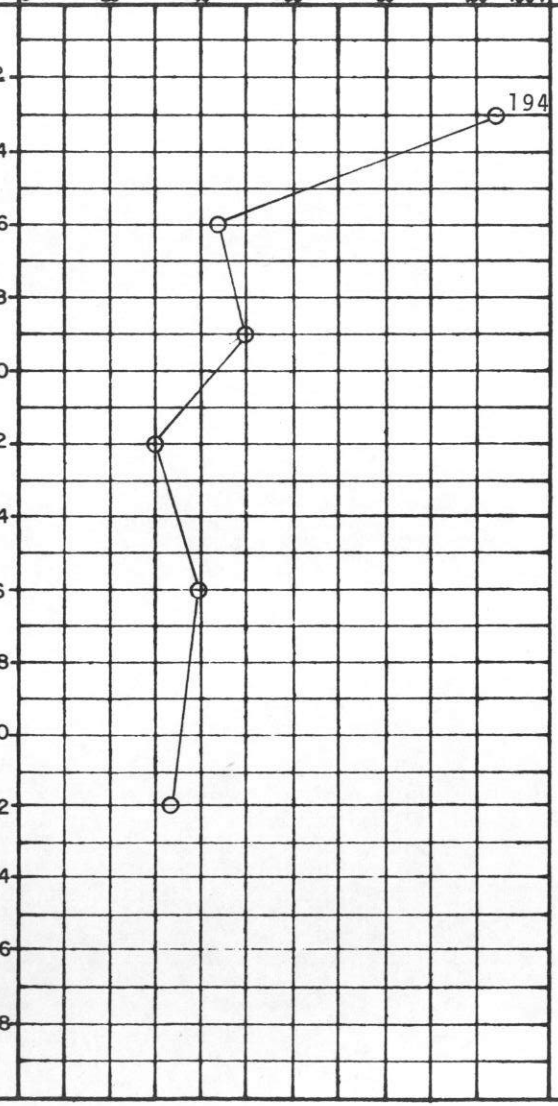
DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A22963-109	CHAINAGE. 2111+56	OFFSET.	TEST HOLE 4
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice
2						2'		
4						CLAY -Organic to 4' Silty		Vs
6						Med. high plastic		Moderate
8					CI			
10								Ice
12					CH		F	
14								
16								Vc - Vr
18								
20								
22								
24								
26						25'		
28						BOTTOM OF HOLE - 25'		

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT



GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Wet	
				Wet	
				Wet	
				Moist	
				Moist	

DS-14-5-74 b

BORROW PIT 30

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2111+56	OFFSET.	TEST HOLE 5
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION
0					Pt	PEAT		High Ice Vs
2						2'		
4						CLAY -Silty Med. to high plastic		Moderate Ice
6								
8					CI		F	
10					CH			Vc - Vr To High Ice
12								
14								
16								
18								
20								Vs
22								
24						25'		
26						BOTTOM OF HOLE - 25'		
28								

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
0 20 40 60 80 100 120 140 160 180+

GRAIN-SIZE ANALYSIS				RELATIVE THAWED MOISTURE CONTENT	REMARKS
CLAY %	SILT %	SAND %	GRAVEL %		
				Free Water	
				Moist	
				Moist	
				Wet	
				Wet	
				Sat.	

DS-14-5-74 b

BORROW PIT 30

DEPARTMENT OF PUBLIC WORKS, CANADA
MACKENZIE HIGHWAY

DRILL HOLE REPORT

SITE: SECTION D

FIELD ENG. B. CONSTANT	DATE DRILLED. 7/12/73	AIRPHOTO NO. A 22963-109	CHAINAGE. 2111+56	OFFSET.	TEST HOLE 6
TECH. BAINE	RIG. MAYHEW - #1	SURFACE DRAINAGE.	VEGETATION.	ELEV.	MILE

DEPTH (FEET)	SAMPLE NUMBER	SAMPLE TYPE	% RECOVERY	PENETRATION RESISTANCE	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	LIMITS OF FROZEN GROUND	ICE DESCRIPTION	GRAIN-SIZE ANALYSIS CLAY %	SILT %	SAND %	GRAVEL %	RELATIVE THAWED MOISTURE CONTENT	REMARKS
2					Pt	PEAT — 2'		Moderate					Free Water	
4					GC	GRAVEL -Clayey Sandy Low to med plastic Boulders 14'-15'		Ice					Moist	
6														
8													Moist	
10							F							
12								Vc - Vr					Wet	
14														
16													Wet	
18														
20														
22								High Ice					Free Water	
24								Vs						
26						25' — BOTTOM OF HOLE - 25'									
28														

DRY DENSITY (lbs./ Ft.^{3})
WATER CONTENT (% of dry weight)
ICE CONTENT (% of sample volume)
PLASTIC LIMIT — LIQUID LIMIT
40 0 60 20 80 40 100 60 120 80 140 100 100+

DS-14-5-74 b