



 **Public Works
Canada**

**Travaux Publics
Canada**

Western Region

Région de l'Ouest



D003726

**REPORT ON
GEOTECHNICAL INVESTIGATION**

Kilometer 138 to Kilometer 164

FT. LIARD HIGHWAY

VOLUME III - Borrow & Centreline Testholes

1979

HOLE No. 138-SA

[illegible]

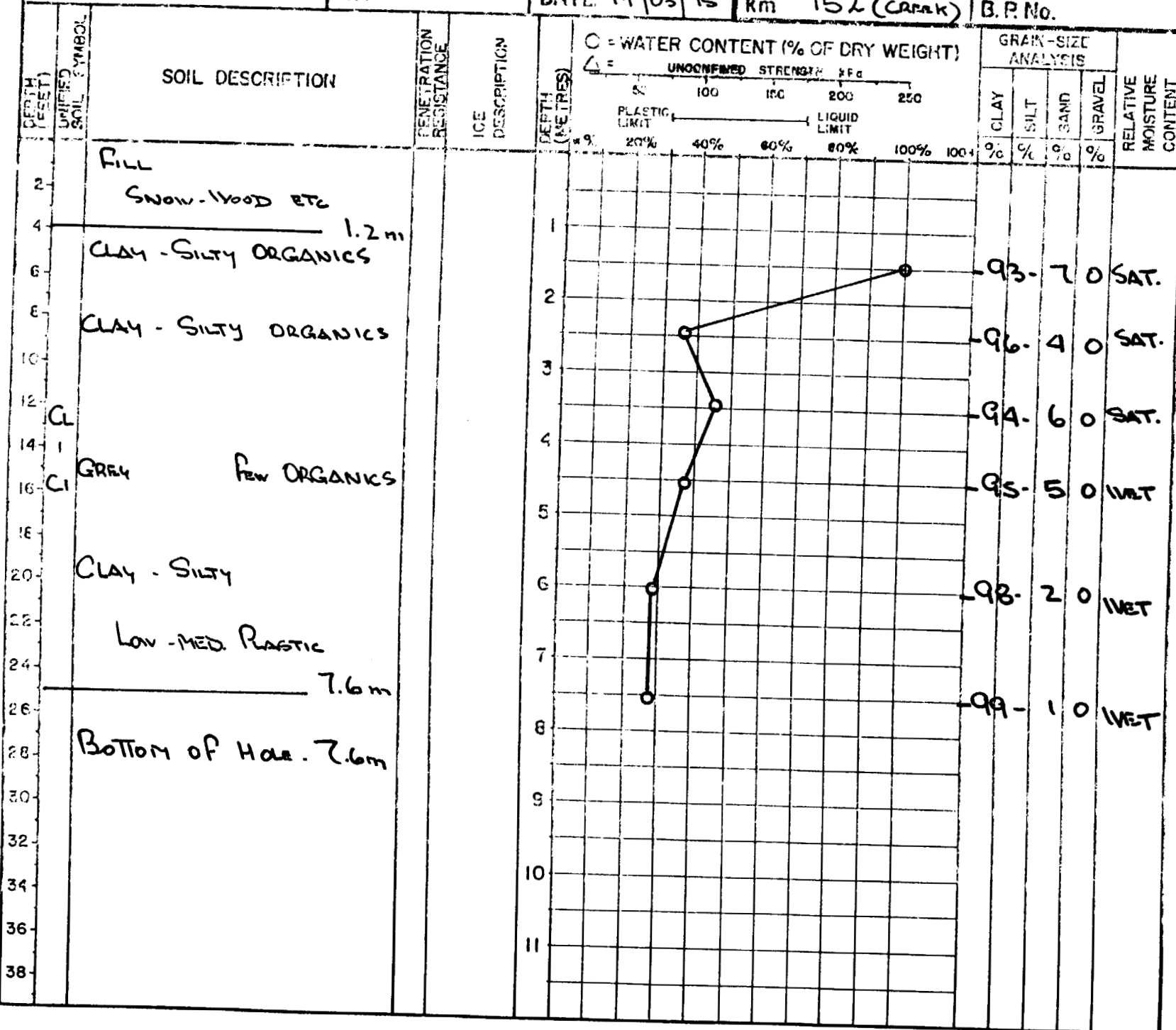
HOLE No. 152 -A

OFFSET

15' Rt

REMARKS

GRAIN-SIZE ANALYSIS

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONYCH

RIG B-50

DATE 19/03/19

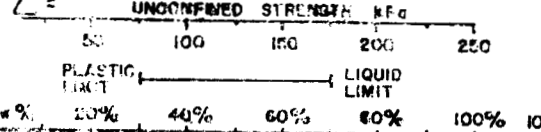
km

B.P. No. 60

HOLE No. 15

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	C - WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL			
						UNCONFINED STRENGTH KPa		%	%	%	%	REMARKS		
2	ML	SILT			1									
4		GRAVEL - SANDY			2									
6					3									
8	GW				4									
10					5									
12					6									
14	SW	SAND - PEBBLES			7									
16					8									
18					9									
20					10									
22					11									
24														
26														
28														
30														
32														
34														
36														
38														

C - WATER CONTENT (% OF DRY WEIGHT)



GRAIN-SIZE ANALYSIS

CLAY	SILT	SAND	GRAVEL
%	%	%	%

RELATIVE MOISTURE CONTENT

CHAINAGE

OFFSET

REMARKS

2 ML SILT

4 GRAVEL - SANDY 1.2m

6

8 GW

10

12 SAND - PEBBLES 3.8m

14 SW SAND - PEBBLES 4.6m

16

18 BOTTOM OF HOLE - 4.6m

20

22 FREE WATER @ 4.0m

24

26

28

30

32

34

36

38

6 - 29 65 DAMP

4 - 48 48 DAMP

4 - 86 10 WET

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy

TECH. D. Pronych

RIG B-50

DATE 79/03/19 km

B.P. No. 60

HOLE No. 16

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	C = WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL			
2	ML	SILT		Frozen										
4		GRAVEL - SANDY												
6														
8	GW													
10														
12														
14														
16	SW	SAND - PEBBLES												
18														
20														
22														
24														
26														
28														
30														
32														
34														
36														
38														

.9m

Frozen

1

2

3

4

5

6

7

8

9

10

11

10.41 49 Moist

4.52 44 Wet

3.43 54 Sat.

2.88 10 Sat.

5.2m

6.1m

Bottom of Hole. 6.1m

HOLE No. 1

[illegible]

HOLE No. 2

[illegible]

DATE	79	02	18	km	140
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E. P. No. 14

HOLE No. 3

[illegible]

km 140

HOLE No. 4

HOLE No. 5

38

HOLE No. 6

[illegible]

HOLE No. 4

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. Pronych

RIG B-50

DATE 19 02 17 km 142

B.P. No. 63

HOLE No. 5

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL			
2	CI	CLAY - SILTY			0.6	96	4	0			DAMP			
4	ML	SILT - CLAYEY			1.0	98	2	0			DAMP			
6					1.5	99	1	0			MOIST			
8	CL	CLAY - SILTY			2.0	99	1	0			MOIST			
10	CI	LOW - MED. PLASTIC			3.0	99	1	0			MOIST			
12		WET AFTER 3.7m			4.0	99	1	0			MOIST			
14					4.6	99	1	0			WET			
16														
18														
20														
22														
24														
26														
28														
30														
32														
34														
36														
38														

Bottom of Hole - 4.6m

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONICH

RIG B-50

DATE 9/02/17

km 142

B.P. No. 63

HOLE No. 6

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METERS)	WATER CONTENT (% OF DRY WEIGHT)		GRAIN SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						W	L	CLAY	SILT	SAND	GRAVEL			
						Q = WATER CONTENT (% OF DRY WEIGHT) A = UNCOMPACTED STR. RET. KPa PLASTIC LIMIT LIQUID LIMIT 20% 40% 60% 80% 100% 100+		CLAY %	SILT %	SAND %	GRAVEL %			
2		CLAY-SILTY			1	98	2	0				DAMP		
4		LOW-MED PLASTIC			2	99	1	0				DAMP		
6		+ PL			3	99	1	0				MOIST		
8					4	100	0	0				MOIST		
10					5	99	1	0				MOIST		
12					6	99	1	0				MOIST		
14					7									
16		4.9			8									
18		SATURATED			9									
20		CLAY-SILTY			10									
22		LOW PLASTIC 6.1m			11	97	3	0				SAT.		
24														
26														
28														
30														
32														
34														
36														
38														

REMARKS

CLAY-SILTY
LOW-MED PLASTIC
+ PL
SATURATED
CLAY-SILTY
LOW PLASTIC 6.1m
BOTTOM OF HOLE - 6.1m

DATE 79 02 17 Item 142

B. P. No. 12

HOLE No. 1

[illegible]

HOLE No. 2

[illegible]

HOLE No. 3

[illegible]

HOLE No. 4

[illegible]

TECH. D. PRONYCH

RIG B-50

DATE 19/02/17

km 143

B.P. No. 64

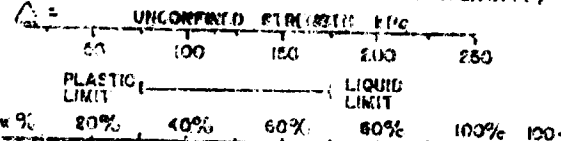
HOLE No. 3

SOIL DESCRIPTION

PENETRATION
RESISTANCE

ICE
DESCRIPTION

WATER CONTENT (% OF DRY WEIGHT)



GRAIN-SIZE
ANALYSIS

CLAY SILT SAND GRAVEL
% % % %

RELATIVE
MOISTURE
CONTENT

CHAINAGE

OFFSET

REMARKS

SILT-CLAYEY

ML

2.4 m

CLAY-SILTY
MED. PLASTIC

CI

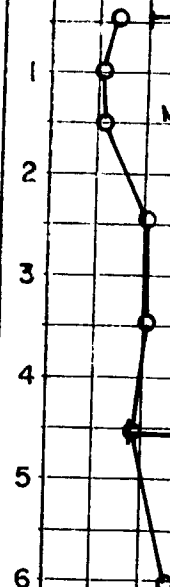
WET AFTER 5.2 m

LOW PLASTIC

CL

6.1 m

BOTTOM OF HOLE - 6.1 m



95-50 DAMP
95-50 DAMP
96-10 DAMP
100-00 MOIST
99-10 MOIST
99-10 MOIST
100-00 WET

TECH. D. Pronych

RIG B-50

DATE 19/02/17

1km

143

B.P. No. 64

HOLE No. 4

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	WATER CONTENT (% OF DRY WEIGHT)		GRAIN SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						UNCONSOLIDATED STRENGTH KPa		CLAY	SILT	SAND	GRAVEL		REMARKS	
						0	100	0	0	0	0			
						20	100	0	0	0	0			
						40	100	0	0	0	0			
						60	100	0	0	0	0			
						80	100	0	0	0	0			
						100	100	0	0	0	0			
						120	100	0	0	0	0			
						140	100	0	0	0	0			
						160	100	0	0	0	0			
						180	100	0	0	0	0			
						200	100	0	0	0	0			
						220	100	0	0	0	0			
						240	100	0	0	0	0			
						260	100	0	0	0	0			
						280	100	0	0	0	0			
						300	100	0	0	0	0			
						320	100	0	0	0	0			
						340	100	0	0	0	0			
						360	100	0	0	0	0			
						380	100	0	0	0	0			

SILT - CLAY

ML

CLAY - SILTY

WET AFTER 4.0m

4.6m

Bottom of Hole - 4.6m

97- 3 0 DAMP
98- 2 0 DAMP
99- 1 0 DAMP
100- 0 0 MOIST
99- 1 0 MOIST
100- 0 0 WET

HOLE No. 4

HOLE No. 5

[illegible]

HOLE No. 5

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy. Revision

TECH. D. PRONYCH

RIG B-50

DATE 19 02 17 km 143

B.P. No. 64

HOLE No. 6

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	WATER CONTENT (% OF DRY WEIGHT)		GRAIN SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						UNCONSOLIDATED	PLASTIC LIMIT	CLAY	SILT	SAND	GRAVEL			
2	ML	SILT-CLAYEY			0.5	95	5	0	DAMP					
1					99	1	0	DAMP						
2					99	1	0	DAMP						
3					100	0	0	MOIST						
4					98	2	0	MOIST						
5	CL	CLAY - SILTY LOW PLASTIC WET AFTER 3.4m			4.6	99	1	0	WET					
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														
35														
36														
37														
38														

2.4m
CLAY - SILTY
LOW PLASTIC
WET AFTER 3.4m
4.6m
Bottom of Hole - 4.6m

WATER CONTENT (% OF DRY WEIGHT)
UNCONSOLIDATED PLASTIC LIMIT LIQUID LIMIT
20% 40% 60% 80% 100% 120%

CLAY SILT SAND GRAVEL
% % % %

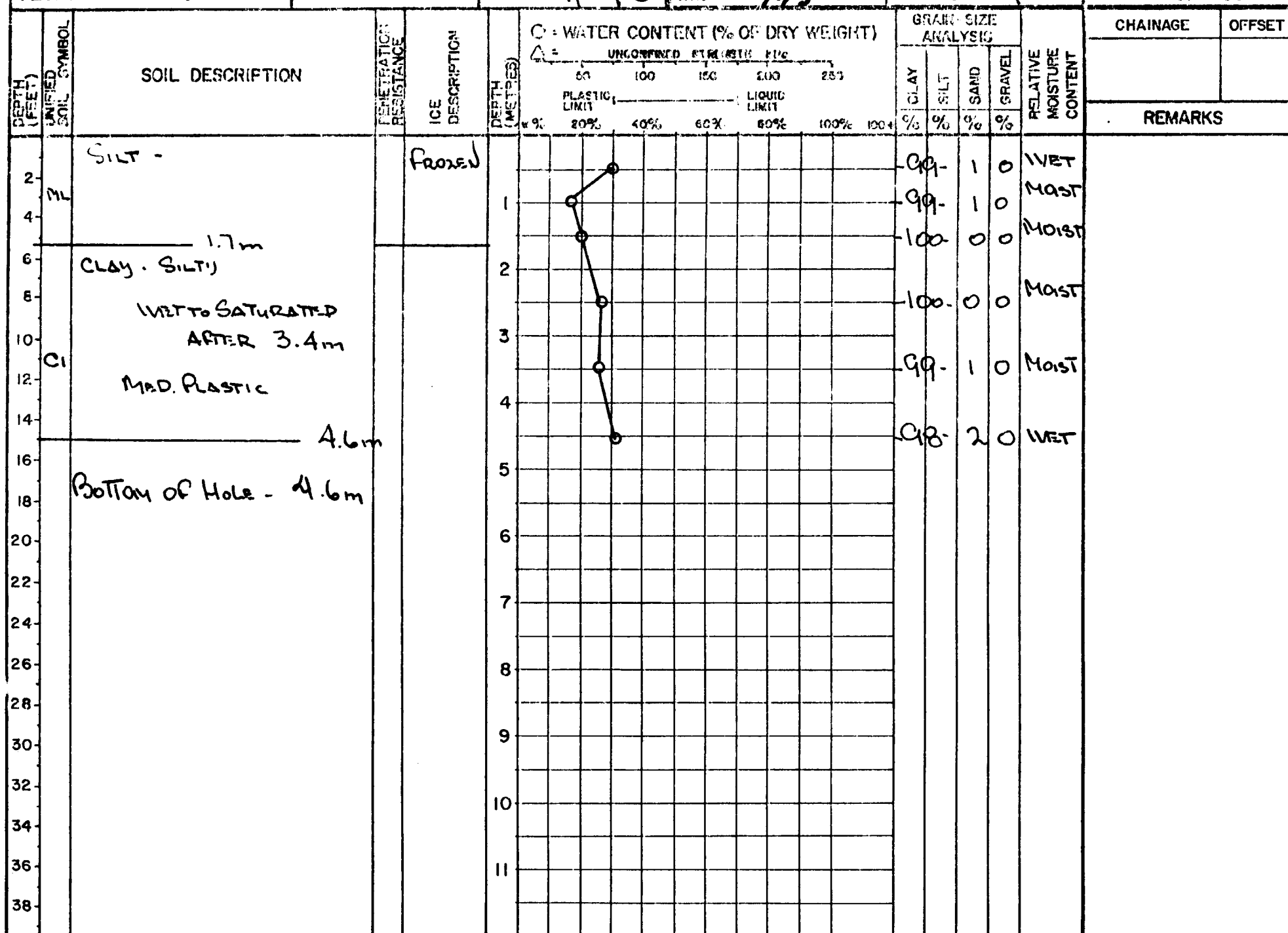
RELATIVE MOISTURE CONTENT

CHAINAGE OFFSET
REMARKS

HOLE No. 1

[illegible]

HOLE No. 2



HOLE No. 3

[illegible]

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DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONYCH

RIG B-50

DATE 79 on 16 km 145

B.P. No. 9

HOLE No. 5

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	WATER CONTENT (% OF DRY WEIGHT)					GRAIN SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						UNCOMPRESSED PLASTIC FLOW					CLAY	SILT	SAND	GRAVEL		REMARKS	
						50	100	150	200	250							
						PLASTIC LIMIT			LIQUID LIMIT		%	%	%	%			
						20%	40%	60%	80%	100%							
2	ML	SILT									95-	5	0		DAMP		
4		CLAY - SILTY			1						98-	2	0		DAMP		
6		MED. PLASTIC			2						98-	2	0		MOIST		
8					3						97-	3	0		MOIST		
10	CI				4						98-	2	0		MOIST		
12					5						99-	1	0		MOIST		
14					6						99-	1	0		MOIST - WET		
16					7												
18					8												
20					9												
22					10												
24					11												
26																	
28																	
30																	
32																	
34																	
36																	
38																	

.8m

6.1m

BOTTOM OF HOLE - 6.1m

TECH. D. Prorovich

RIG B-50

DATE 79/02/17

11m 145

B.P. No. 9

HOLE No. 96

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						UNCONSOLIDATED PLASTICITY (%)		CLAY	SILT	SAND	GRAVEL		REMARKS	
						PLASTIC LIMIT	LIQUID LIMIT	%	%	%	%			
2	ML	SILT						99.	1	0		MOIST		
4		CLAY - SILTY			1			100.	0	0		MOIST		
6		MED. PLASTIC			2			100.	0	0		MOIST		
8					3			99.	1	0		MOIST		
10					4			100.	0	0		MOIST		
12	CI				5			99.	1	0		MOIST		
14					6			100.	0	0		MOIST		
16					7									
18					8									
20					9									
22					10									
24					11									
26														
28														
30														
32														
34														
36														
38														

1.2m

1.2m AFTER 5.2m

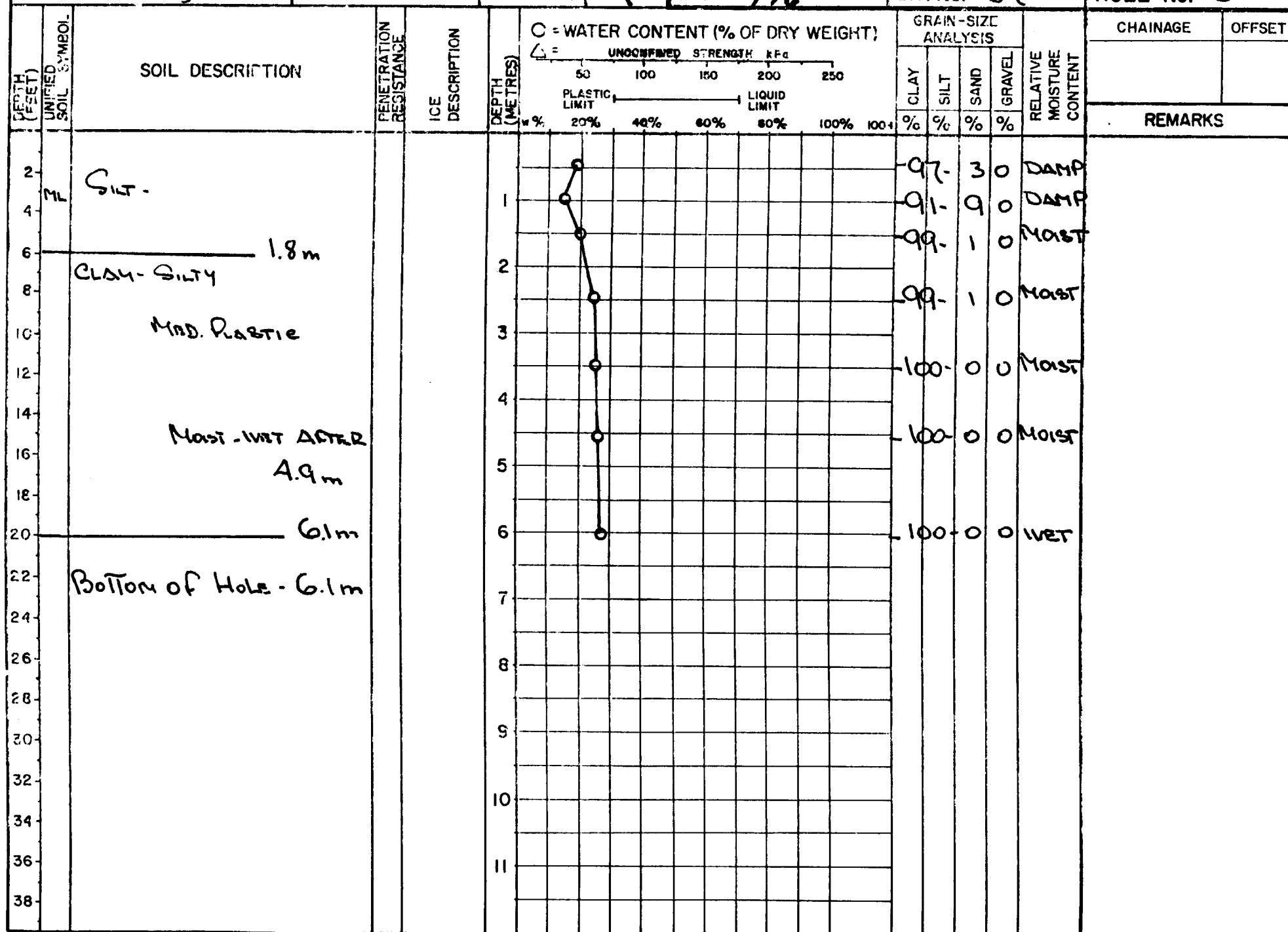
6.1m

Bottom of Hole - 6.1m

HOLE No. 7

[illegible]

HOLE No. 6



HOLE No. 7

[illegible]

HOLE No. 8

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. Pronych

RIG B-50

DATE 79/02/16

km 146

B.P. No. 67

HOLE No. 9

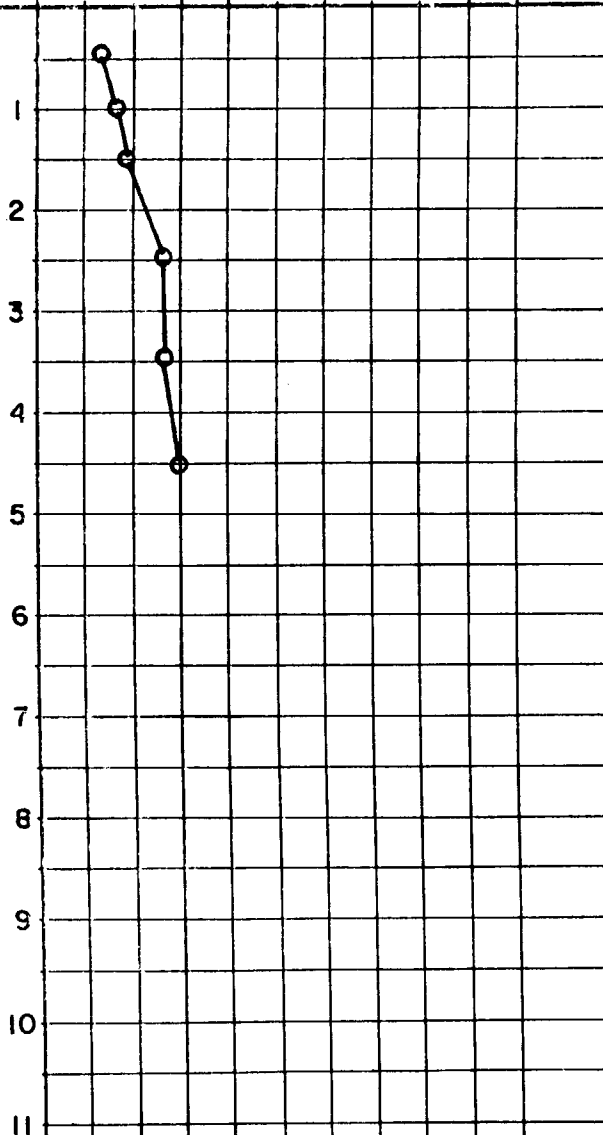
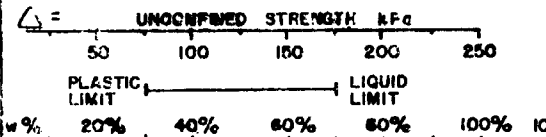
DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	C = WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL		REMARKS	
2	ML	SILT			1	97	30							
4					2	99	10							
6		CLAY-SILTY			3	97	30							
8		MED. PLASTIC			4	98	20							
10	CI	WET AFTER 2.7m			5	99	10							
12					6	99	10							
14					7									
16					8									
18					9									
20					10									
22					11									
24														
26														
28														
30														
32														
34														
36														
38														

1.5m

4.6m

Bottom of Hole - 4.6m

C = WATER CONTENT (% OF DRY WEIGHT)



97	30	DAMP
99	10	DAMP
97	30	DAMP
98	20	MOIST
99	10	WET
99	10	WET

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONYCH

RIG B-50

DATE 79/02/16

km

146

B.P. No. 67

HOLE No. 10

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						CLAY	SILT	SAND	GRAVEL		REMARKS	
						O = WATER CONTENT (% OF DRY WEIGHT) Δ = UNCONFINED STRENGTH kPa						
						50 100 150 200 250						
						PLASTIC LIMIT LIQUID LIMIT						
						20% 40% 60% 80% 100% 100+						
						%	%	%	%			
2	ML	SILT				99	1	0	0	MOIST		
4		CLAY - SILTY			1	100	0	0	0	MOIST		
6		MED. PLASTIC			2	99	1	0	0	MOIST		
8					3	99	1	0	0	MOIST		
10					4	100	0	0	0	MOIST - WET		
12					5	100	0	0	0	MOIST - WET		
14					6	100	0	0	0	MOIST - WET		
16					7							
18					8							
20					9							
22					10							
24					11							
26												
28												
30												
32												
34												
36												
38												

7.5m

MED. PLASTIC

WET AFTER 2.7m

6.1m

BOTTOM OF HOLE - 6.1m

HOLE No. 1

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy. REVISION

TECH. D. PRONYCH

RIG B-50

DATE 19/03/15

km 150

B.P. No. 8

HOLE No. 2

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	O = WATER CONTENT (% OF DRY WEIGHT) Δ = UNCONFINED STRENGTH kPa		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	REMARKS	
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL			
						%	%	%	%	%	%			
2	SM	SILT-SAND MIXTURE			0									
4	ML				1									
6					2									
8					3									
10					4									
12	ML	SILT-SANDY			5									
14					6									
16					7									
18					8									
20	ML	SILT-CLAYEY			9									
22					10									
24					11									
26														
28														
30														
32														
34														
36														
38														

3.4 m

6.1 m

BOTTOM OF HOLE - 6.1m

55-45 0 HUMID
32-68 0 DAMP
52-48 0 DAMP
48-52 0 DAMP
64-36 0 DAMP
85-15 0 MOIST
95-5 0 SAT.

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - Revision

TECH. D. PRONYCH

RIG B-50

DATE 19/03/15 km 150

B.P. No. 8

HOLE No. 3

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						CLAY	SILT	SAND	GRAVEL		REMARKS	
						%	%	%	%			
2	SM	SILT - SAND MIXTURE			0	59	41	0	0	HUMID		
4	ML				1	49	51	0	0	HUMID		
6					2	50	50	0	0	HUMID		
8		SILT - SANDY 2.4m			3	61	39	0	0	DAMP		
10	ML				4	62	38	0	0	MOIST		
12					5	76	24	0	0	MOIST		
14					6	93	7	0	0	VERY SAT.		
16												
18												
20	ML	SILT - CLAYEY 6.1m										
22		BOTTOM OF HOLE - 6.1m										
24												
26												
28												
30												
32												
34												
36												
38												

○ = WATER CONTENT (% OF DRY WEIGHT)

△ = UNCONFINED STRENGTH kPa

50 100 150 200 250

PLASTIC LIMIT LIQUID LIMIT

20% 40% 60% 80% 100% 100+

w %

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - DIVISION

TECH. D. Pronych

RIG B-50

DATE 19/03/15 km 150

B.P. No. 8

HOLE No. 4

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	C = WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						UNCONSOLIDATED STRENGTH KPa	PLASTIC LIMIT	CLAY	SILT	SAND	GRAVEL			
2	ML	SILT-SAND MIXTURE			1			48	62	0				
4	SM				2			43	57	0				
6					3			63	37	0				
8					4			52	48	0				
10					5			77	23	0				
12	ML	SILT-SANDY			6			79	21	0				
14					7									
16					8									
18	ML	SILT-SANDY CLAY 6.1m			9									
20					10									
22					11									
24														
26														
28														
30														
32														
34														
36														
38														

REMARKS

Humid
DAMP
Moist
Moist
Moist
Moist
Moist
WET-SAT.

SILT-SAND MIXTURE

SILT-SANDY

SILT-SANDY CLAY 6.1m

BOTTOM OF HOLE - 6.1m

3.4m

6.1m

C = WATER CONTENT (% OF DRY WEIGHT)

UNCONSOLIDATED STRENGTH KPa

PLASTIC LIMIT LIQUID LIMIT

20% 40% 60% 80% 100% 100+

GRAIN-SIZE ANALYSIS

CLAY SILT SAND GRAVEL
% % % %

RELATIVE MOISTURE CONTENT

CHAINAGE

OFFSET

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONYCH

RIG B-50

DATE 19 03 / 16

km 150

B.P. No. 10

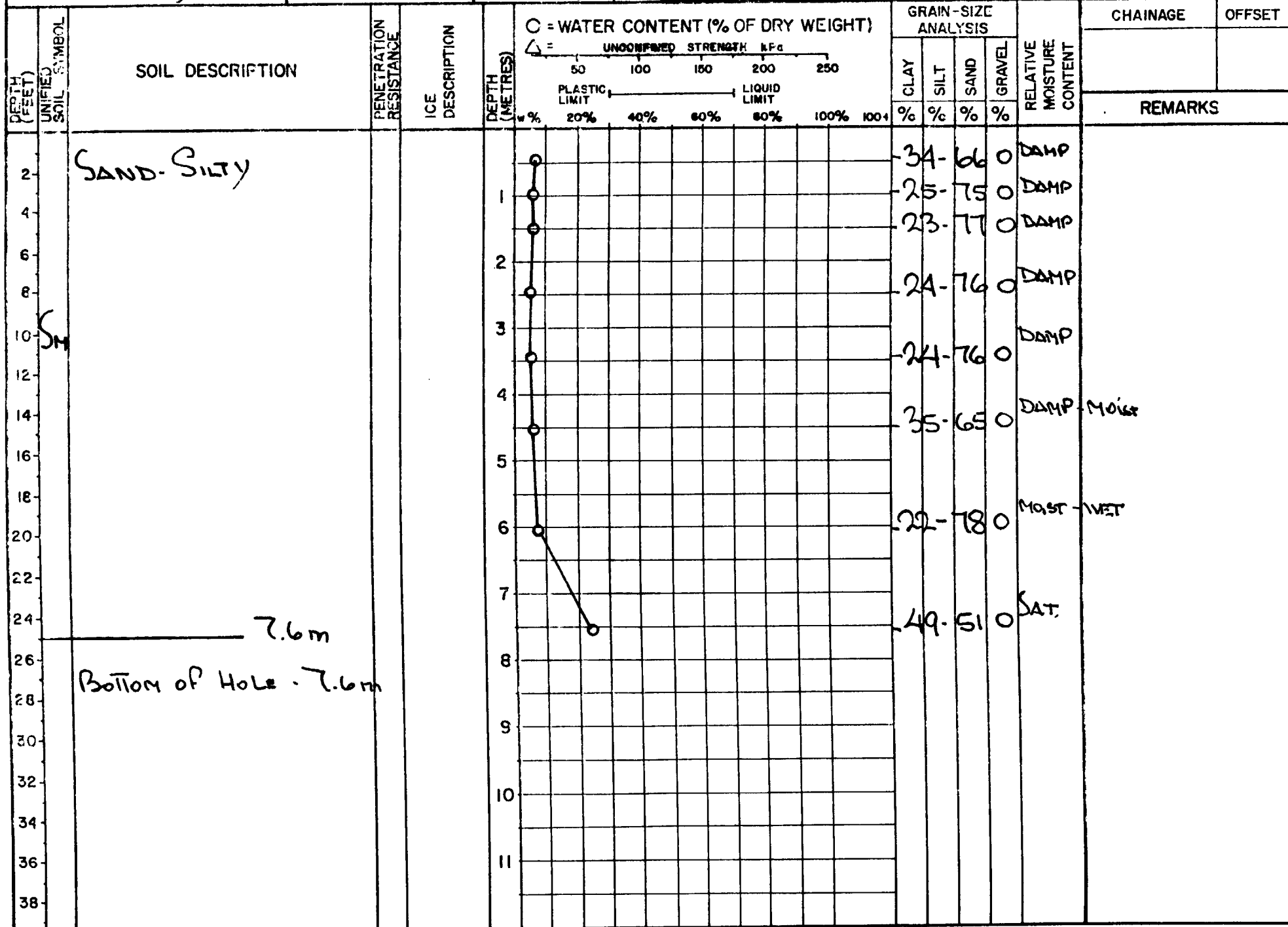
HOLE No. 1

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	C = WATER CONTENT (% OF DRY WEIGHT)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL		REMARKS	
						UNCONSOLIDATED STRENGTH kPa								
						50	100	150	200	250				
						20%	40%	60%	80%	100%	100%			
2		SAND - SILTY			0							33-67	0	DAMP
4			1									17-83	0	DAMP
6			2									15-85	0	DAMP
8	SM		3									27-73	0	DAMP
10			4									17-83	0	DAMP
12			5									23-77	0	DAMP
14					6							43-57	0	SAT.
16					7									
18					8									
20					9									
22					10									
24					11									
26														
28														
30														
32														
34														
36														
38														

6.1m

BOTTOM OF HOLE. 6.1m

HOLE No. 2



HOLE No. 2

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONYCH

RIG B-50

DATE 79/02/14

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B.P. No. 6

HOLE No. 1

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	O = WATER CONTENT (% OF DRY WEIGHT) Δ = UNCONFINED STRENGTH (kPa)		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	REMARKS
						PLASTIC LIMIT (%)	LIQUID LIMIT (%)	CLAY (%)	SILT (%)	SAND (%)	GRAVEL (%)		
2	ML	SILT			0.5	~50	~100	99	1	0		Moist	BR#6
4					1	~50	~100	99	1	0		Damp	
6					2	~50	~100	100	0	0		Damp	
8	CL	CLAY - SILTY LOW PLASTIC			3	~50	~100	100	0	0		Moist	
10					4	~50	~100	98	2	0		WET	
12					5	~50	~100	96	4	0		WET	
14					6								
16					7								
18													
20													
22													
24													
26													
28													
30													
32													
34													
36													
38													

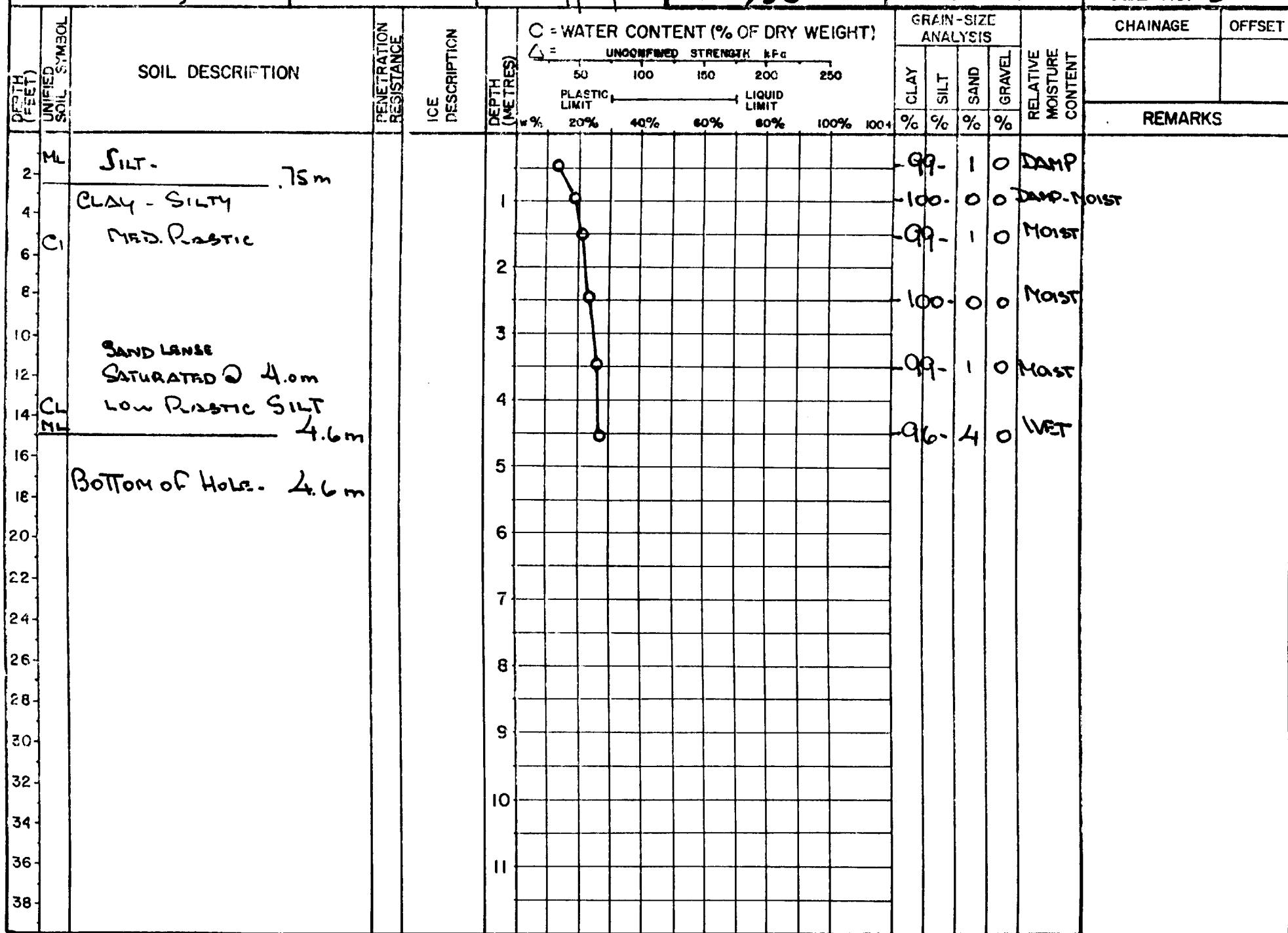
2.0 m

NET DATA
4.0 m

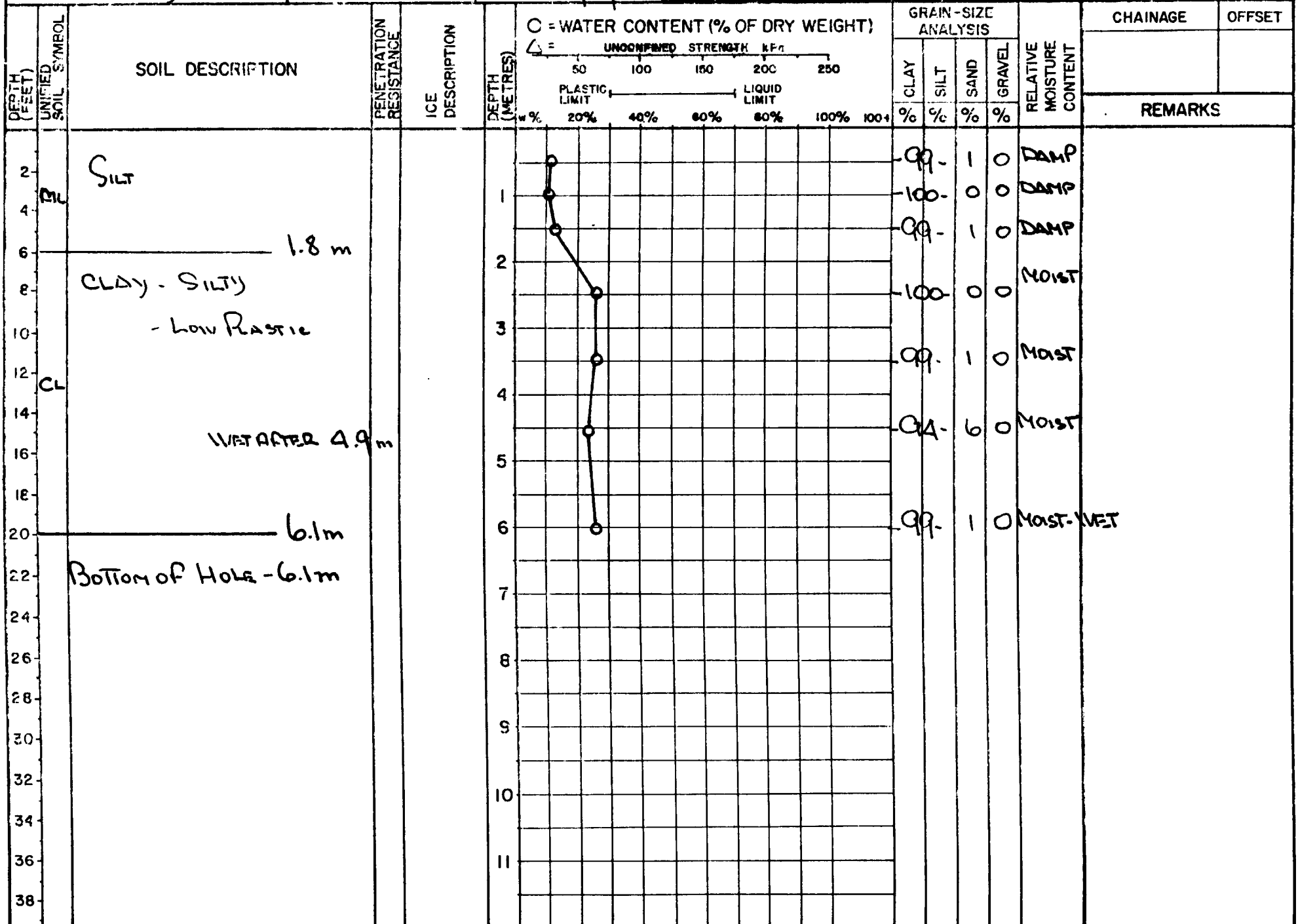
4.6 m

Bottom of Hole. 4.6 m

HOLE No. 3



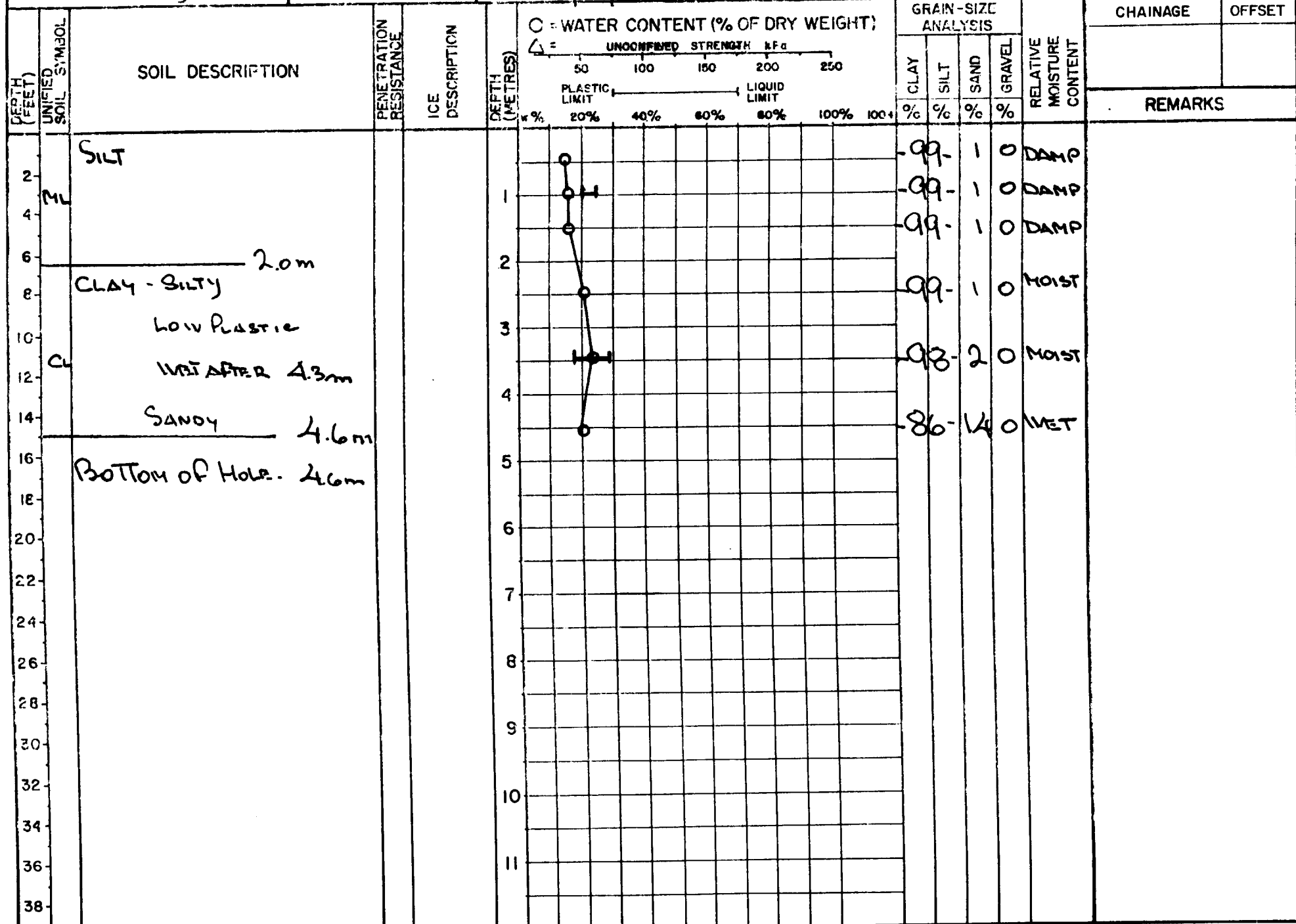
HOLE No. 2



HOLE No. 3

[illegible]

HOLE No. 4



PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy - REVISION

TECH. D. PRONYCH

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B.P. No. 6

HOLE No. 5

CHAINAGE

OFFSET

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	REMARKS
						CLAY	SILT	SAND	GRAVEL		
						%	%	%	%		
2	ML	SILT -			1	98	2	0	0	DAMP	
4					2	99	1	0	0	DAMP	
6		1.8 m			3	99	1	0	0	DAMP	
8		CLAY SILTY			4	99	1	0	0	Moist	
10		LOW PLASTIC			5	99	1	0	0	Moist	
12	CL				6	98	12	0	0	Moist	
14					7						
16					8						
18					9						
20		6.1 m			10						
22		Bottom of Hole - 6.1 m			11						
24											
26		WATER BEARING SAND									
28		LENS 49 - 5.05 m									
30											
32											
34											
36											
38											

C = WATER CONTENT (% OF DRY WEIGHT)

UNCONSOLIDATED STRENGTH KPa

PLASTIC LIMIT LIQUID LIMIT

20% 40% 60% 80% 100% 100+

50 100 150 200 250

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

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1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

1 2 3 4 5 6 7 8 9 10 11

HOLE No. 7

[illegible]

LIARD Hwy.

HOLE No. 9

[illegible]

HOLE No. 10

[illegible]

HOLE No. 11

[illegible]

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy.

TECH. D. PRONYCH

RIG B-50

DATE 79/03/14

km

B.P. No. 81

HOLE No. 12

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						CLAY	SILT	SAND	GRAVEL		REMARKS	
						O = WATER CONTENT (% OF DRY WEIGHT) Δ = UNCONFINED STRENGTH kPa PLASTIC LIMIT LIQUID LIMIT 20% 40% 60% 80% 100% 100+						
2	ML	SILT			1	96	4	0	0	SAT.		
4					2	97	3	0	0	SAT.		
6					3	98	2	0	0	MOIST		
8	Sc	SAND-SILTY CLAYEY PEBBLES			4	39	59	2	0	MOIST		
10					5	29	70	1	0	MOIST		
12	Sm	SILTY			6	21	64	15	0	MOIST		
14		GRAVELLY			7	24	58	18	0	WET		
16	Sc				8							
18					9							
20					10							
22					11							
24												
26												
28												
30												
32												
34												
36												
38												

2.1m

6.1m

BOTTOM OF HOLE - 6.1m

PUBLIC WORKS CANADA

DRILL HOLE REPORT

LIARD Hwy

TECH. D. PRONYCH

RIG B-50

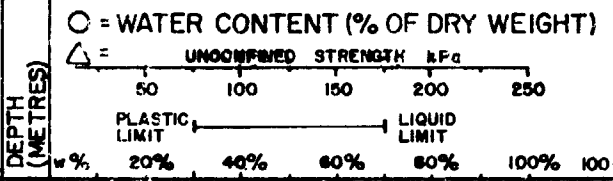
DATE 19/03/14

km

B.P. No. 81

HOLE No. 13

DEPTH (FEET)	UNIFIED SOIL SYMBOL	SOIL DESCRIPTION	PENETRATION RESISTANCE	ICE DESCRIPTION	DEPTH (METRES)	O = WATER CONTENT (% OF DRY WEIGHT) Δ = UNCONFINED STRENGTH kPa		GRAIN-SIZE ANALYSIS				RELATIVE MOISTURE CONTENT	CHAINAGE	OFFSET
						PLASTIC LIMIT	LIQUID LIMIT	CLAY	SILT	SAND	GRAVEL		REMARKS	
						%	%	%	%	%	%			
2	ML	SILT												
4		CLAY - SILTY 1.2m												
6	CL	SANDY PEBBLES												
8		Low Plastic 2.1m												
10		SAND - SILTY CLAY LUMPS												
12	Sc	CLAYEY												
14		GRAVELLY												
16	Sp													
18														
20	Sm	PEBBLES												
22														
24		FREE WATER AFTER 6.7m												
26		7.6m												
28		BOTTOM OF HOLE - 7.6m												
30														
32														
34														
36														
38														



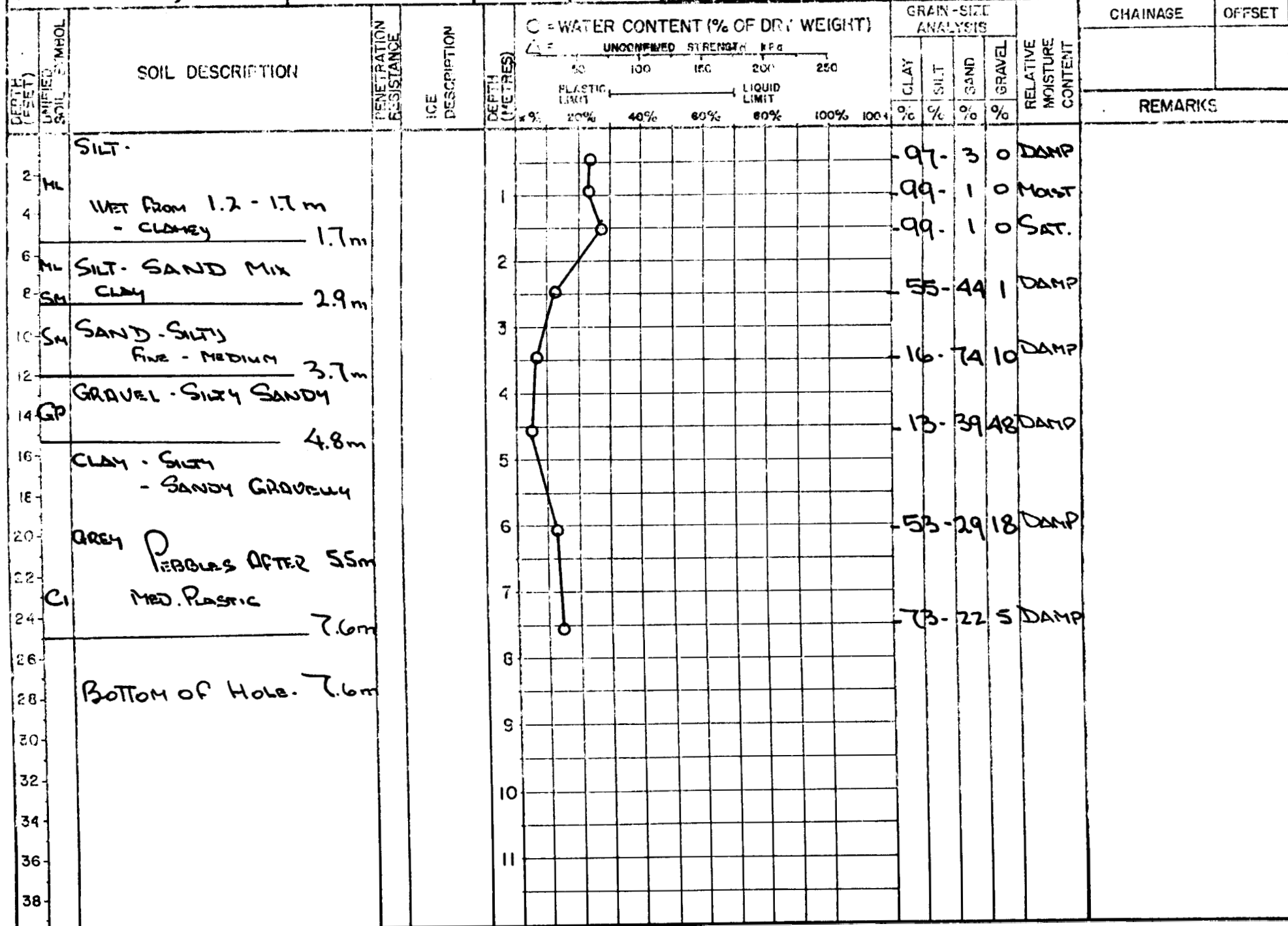
CLAY	SILT	SAND	GRAVEL	RELATIVE MOISTURE CONTENT
%	%	%	%	
95	5	0		Moist
98	2	0		Moist
75	22	3		Moist
16	83	1		Moist
19	73	8		Moist
8	69	23		DAMP MOIST
7	74	19		DAMP MOIST
14	79	7		SAT.

LIARD Hwy

HOLE No. 14

[illegible]

HOLE No. 15



HOLE No. 16

[illegible]

HOLE No. 17

[illegible]

HOLE No. 18

OFFSET

RELATIVE MOISTURE CONTENT	TEMPERATURE	WATER VAPOR PRESSURE	WATER VAPOR RATIO	WATER VAPOR DENSITY	WATER VAPOR DIFFUSION EQUIVALENT THICKNESS	WATER VAPOR DIFFUSION COEFFICIENT	WATER VAPOR DIFFUSION EQUIVALENT PERMEABILITY
100	20	1.75	0.0175	0.00175	0.001	0.00175	0.00175
90	20	1.58	0.0158	0.00158	0.001	0.00158	0.00158
80	20	1.42	0.0142	0.00142	0.001	0.00142	0.00142
70	20	1.26	0.0126	0.00126	0.001	0.00126	0.00126
60	20	1.10	0.0110	0.00110	0.001	0.00110	0.00110
50	20	0.94	0.0094	0.00094	0.001	0.00094	0.00094
40	20	0.78	0.0078	0.00078	0.001	0.00078	0.00078
30	20	0.62	0.0062	0.00062	0.001	0.00062	0.00062
20	20	0.46	0.0046	0.00046	0.001	0.00046	0.00046
10	20	0.30	0.0030	0.00030	0.001	0.00030	0.00030
0	20	0.14	0.0014	0.00014	0.001	0.00014	0.00014

REMARKS

