

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH1

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 18, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm 20 40 60 80
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
0 m		0 m LNT	0						
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11		Harbour Bottom (-3.33 m)	-3.33						
12		SPT: 2 / 25 / 14 / 16 CFEM: Gravel and Sand, trace Silt and/or Clay	-3.94	SS	1	39	29		
13									
14		Gravel and boulder.							
15			-4.96						
16			-5.21	SS	2	50	90		
17		SPT: 35 / 50 for 0.10 m (Refusal) CFEM: Sand and Gravel, some Silt, trace Clay							
18									
19		Gravel and boulder.							
20			-6.36						
21		SPT: 19 / 24 / 28 / 27 CFEM: Gravelly Sand, some Silt, trace Clay	-6.97	SS	3	52	67		
22									
23		Gravel and boulder.							
24			-7.73						
25		SPT: 50 / 50 for 0.02 m (Refusal) CFEM: Gravel and Sand, trace Silt and/or Clay		SS	4	50	100		
26									
27		Gravel.	-8.68						
28									
29				RC	--		94	57	



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154 Major's Path
St. John's, NL A1A 5A1
Phone: (709) 730-2270

Drilling Method: NQ, Diamond

Driller: Formation Drilling Ltd

Datum: LNT

Sheet: 1 of 2

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH1

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 18, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below LNT	Symbol		Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)				
30		Bedrock: Red and grey, medium grained, quartz cemented, sandstone.		RC	--		94	57				
31				RC	--		90	18				
32												
33	10											
34		Bedrock: Red and grey, medium grained, quartz cemented, sandstone.		RC	--		100	56				
35												
36	11											
37												
38		Bedrock: Red and grey, medium grained, quartz cemented, sandstone.		RC	--		92	67				
39	12											
40												
41												
42		End of Borehole	-12.1									
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52	16											
53												
54												
55												
56	17											
57												
58												
59												



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Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH2

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 17, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
ft	m								
0	0	0 m LNT	0						20 40 60 80
1									
2									
3	1								
4									
5									
6	2								
7									
8									
9									
10	3								
11		Harbour Bottom (-3.36 m)	-3.36						
12		Splitspoon sank 0.18 m.							
13	4	SPT: 6 / 6 / 16 / 25 CFEM: Sand and Gravel, trace Silt and/or Clay	-4.15	SS	1	22	33		
14			-4.71						
15									
16	5	SPT: 28 / 26 / 40 / 47 CFEM: Sand and Gravel, some Silt, trace Caly	-5.32	SS	2	66	67		
17									
18		Boulder and gravel.							
19	6		-6.21	SS	3	30	0		
20		SPT: 50 for 0 m (Refusal) No Sample Recovery. SS3; "N" Value = 50; Rec = 0%							
21									
22	7	Boulder and gravel.							
23			-7.63						
24									
25	8	SPT: 40 / 24 / 13 / 44 CFEM: Sand and Gravel, trace Silt and/or Clay	-8.24	SS	4	37	25		
26									
27		Boulder.							
28				RC	--		96	0	
29	9								



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Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH2

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 17, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)				
30		Bedrock: Red and grey, medium grained, quartz cemented, sandstone.		RC	—		98	23				
31												
32												
33	10			RC	—		95	0				
34												
35												
36	11			RC	—		99	39				
37												
38												
39		End of Borehole	-11.7									
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52	16											
53												
54												
55	17											
56												
57												
58												
59												



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Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH3

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 9, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
ft m									
0 0		0 m LNT	0						20 40 60 80
1 0									
2 0									
3 1									
4 1									
5 1									
6 2									
7 2									
8 2									
9 3									
10 3									
11 3		Harbour Bottom (-3.60 m)	-3.6						
12 4		SPT: 3 / 4 / 8 / 13 CFEM: Gravelly Sand, some Silt and/or Clay	-4.21	SS	1	12	50		
13 4									
14 4		Gravel and Boulders.							
15 5									
16 5			-4.94						
17 5		SPT: 50 for 0.13 m (Refusal) CFEM: Gravel and Sand, some Silt, trace Clay SS2; "N" Value = 50; Rec = 100%		SS	2	50	100		
18 6									
19 6		Gravel and Boulder.							
20 6									
21 7			-6.54						
22 7		SPT: 50 for 0.10 m (Refusal) CFEM: Gravelly Sand, some Silt and/or Clay SS3; "N" Value = 50; Rec = 100%		SS	3	50	100		
23 7									
24 8		Gravel and Boulder.							
25 8									
26 8			-8.04						
27 9		SPT: 11 / 22 / 23 / 25 CFEM: Gravelly Sand, some Silt, trace Clay	-8.65	SS	4	45	58		
28 9									
29 9		Gravel and Boulders.							



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Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH3

Location: Old Perican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 9, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm				
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)					
30			-9.47										
31													
32		SPT: 19 / 22 / 21 / 32 CFEM: Gravelly Sand, some Silt, trace Clay	-10.1	SS	5	43	33						
33	10												
34		Boulder.											
35			-10.9										
36	11	SPT: 15 / 24 / 50 for 0.13 m (Refusal) CFEM: Gravel and Sand, trace Silt and/or Clay	-11.3	SS	6	74	47						
37													
38		End of Borehole											
39	12												
40													
41													
42													
43	13												
44													
45													
46	14												
47													
48													
49	15												
50													
51													
52	16												
53													
54													
55	17												
56													
57													
58													
59													



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Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH4

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 8, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm				
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)					
0		0 m LNT	0										
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12		Harbour Bottom (-3.70 m)	-3.7										
13		SPT: 2 / 50 for 0.10 m (Refusal) CFEM: Sand and Gravel, trace Silt and/or Clay	-3.95	SS	1	50	100						
14													
15		Gravel and Boulder.											
16			-5.17										
17		SPT: 22 / 28 / 36 / 42 CFEM: Sand and Gravel, some Silt and/or Clay	-5.78	SS	2	64	67						
18													
19		Boulder.											
20			-6.69										
21		SPT: 50 for 0.0 m (Refusal) No sample recovery. SS3; "N" Value = 50; Rec = 0%		SS	3	50	0						
22													
23		Boulder.											
24			-8.02										
25		SPT: 29 / 38 / 35 / 45 CFEM: Gravelly, Silty Sand, trace Clay	-8.63	SS	4	73	75						
26													
27				RC	---		94	0					
28													
29													



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Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH4

Location: Old Perican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 8, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)				
30		Bedrock: Red and grey, medium grained, quartz cemented, sandstone.	-11.6	RC	--		100	87				
31												
32												
33	10	Bedrock: Red and grey, medium grained, quartz cemented, sandstone.	-11.6	RC	—		98	78				
34												
35												
36	11	Bedrock: Red and grey, medium grained, quartz cemented, sandstone.	-11.6	RC	--		100	73				
37												
38												
39	12	End of Borehole	-11.6									
40												
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52	16											
53												
54												
55												
56	17											
57												
58												
59												



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154 Major's Path
St. John's, NL A1A 5A1

Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Drilling Supervisor: Dave Howlett

Log of Geotech Borehole: BH5

Project No: 508

Date: September 15, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm				
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)					
0		0 m LNT	0										
1													
2													
3													
4													
5													
6													
7													
8													
9													
10		Harbour Bottom (-3.26 m)	-3.26										
11		SPT: 7 / 13 / 11 / 11 CFEM: Gravel and Sand, trace Silt and/or Clay	-3.87	SS	1	24	29						
12													
13		SPT: 13 / 22 / 30 / 34 CFEM: Sand and Gravel, some Silt, trace Clay	-4.48	SS	2	52	54						
14													
15		SPT: 50 for 0.08 m (Refusal) Gravel and sand.	-5.04	SS	3	50	100						
16		SS3; "N" Value = 50; Rec = 100%											
17		Gravel and Boulders.											
18		SPT: 31 / 33 / 32 / 50 for 0.13 m (Refusal)	-5.62	SS	4	65	74						
19		CFEM: Gravelly, Silty Sand, trace Clay		SS	5	50	80						
20		SPT: 50 for 0.13 m (Refusal) Sand and Gravel.	-6.15	SS	6	50	80						
21		SS5; "N" Value = 50; Rec = 100%											
22		Gravel and Boulders.	-6.84										
23		SPT: 50 / 50 for 0.08 m (Refusal) CFEM: Sandy Gravel, some Silt and/or Clay	-7.45	SS	7	87	58						
24		SS6; "N" Value = 50; Rec = 89%											
25		Gravel and Boulders.											
26		SPT: 51 / 48 / 39 / 33 CFEM: Sandy Gravel, trace Silt and/or Clay											
27													
28		End of Borehole											
29													



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Drilling Method: NQ, Diamond

Driller: Formation Drilling Ltd

Datum: LNT

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH6

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 11, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
0		0 m LNT	0						20 40 60 80
1									
2		Harbour Bottom (-0.8 m)	-0.8						
3		SPT: 10 / 23 / 31 / 52 CFEM: Sand and Gravel, some Silt, trace Clay	-1.41	SS	1	54	67		
4		SPT: 23 / 49 / 50 for 0.13 m (Refusal) CFEM: Gravel and Sand, some Silt and/or Clay	-1.84	SS	2	99	65		
5		Gravel and boulders.							
6		SPT: 23 / 25 / 29 / 19 CFEM: Sand and Gravel, some Silt and/or Clay	-2.63	SS	3	54	58		
7		SPT: 16 / 15 / 18 / 25 CFEM: Gravel and Sand, some Silt and/or Clay	-3.24	SS	4	33	54		
8		SPT: 28 / 32 / 52 / 52 CFEM: Gravelly Sand, some Silt, trace Clay	-3.85	SS	5	84	54		
9		SPT: 28 / 39 / 31 / 28 CFEM: Gravel and Sand, some Silt, trace Clay	-4.46	SS	6	70	50		
10		End of Borehole							
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									



Fracflow Consultants Inc.
154 Major's Path
St. John's, NL A1A 5A1

Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH7

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 11 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
0		0 m LNT	0						20 40 60 80
1									
2									
3									
4									
5									
6									
7		Harbour Bottom (-2.17 m)	-2.17						
8		SPT: 8 / 35 / 50 for 0.08 m (Refusal) CFEM: Gravelly Sand, some Silt, trace Clay	-2.7	SS	1	85	71		
9		Gravel and boulders.		SS	2	50	0		
10		SPT: 50 for 0.01 m (Refusal) No sample recovery. SS2; "N" Value = 50; Rec = 0%		RC	—		81	55	
11									
12									
13				RC	—		92	65	
14									
15		Bedrock: Red and grey, medium grained, quartz cemented, sandstone.							
16									
17				RC	—		100	88	
18			-5.68						
19		End of Borehole							
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									



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St John's NL A1A 5A1

Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH8

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 13, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm 20 40 60 80				
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)					
0 m		0 m LNT	0										
1													
2													
3													
4													
5													
6													
7													
8		Harbour Bottom (-2.51 m)	-2.51										
9		SPT: 12 / 22 / 29 / 50 for 0.10 m (Refusal) CFEM: Sand and Gravel, some Silt, trace Clay	-3.07	SS	1	51	77						
10													
11		SPT: 6 / 50 for 0.08 m (Refusal) CFEM: Sandy Gravel, some Silt, trace Clay		SS	2	50	100						
12		Gravel and boulder.	-3.72										
13		SPT: 48 / 41 / 25 / 50 for 0.11 m (Refusal) CFEM: Gravelly Sand, some Silt, trace Clay	-4.29	SS	3	66	62						
14													
15		SPT: 46 / 39 / 32 / 40 CFEM: Sand and Gravel, some Silt, trace Clay	-4.93	SS	4	71	62						
16													
17		SPT: 17 / 21 / 20 / 17 CFEM: Sand and Gravel, some Silt, trace Clay	-5.54	SS	5	41	46						
18													
19		SPT: 19 / 34 / 24 / 19 CFEM: Sand and Gravel, some Silt and/or Clay	-6.15	SS	6	58	50						
20													
21		End of Borehole											
22													
23													
24													
25													
26													
27													
28													
29													



Fracflow Consultants Inc.
154 Major's Path
St. John's, NL A1A 5A1

Drilling Method: NQ, Diamond

Datum: LNT

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH9

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 13-14, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
0 m									
0		0 m LNT	0						
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11		Harbour Bottom (-3.49 m)	-3.49						
12		SPT: 9 / 8 / 10 / 15 CFEM: Gravelly Sand, trace Silt and/or Clay	-4.1	SS	1	18	58		
13		SPT: 11 / 16 / 15 / 18 CFEM: Gravelly Sand, trace Silt and/or Clay	-4.71	SS	2	31	67		
14		SPT: 8 / 6 / 7 / 15 CFEM: Gravel and Sand, trace Silt and/or Clay	-5.32	SS	3	13	46		
15		Gravel and boulder.							
16		SPT: 9 / 10 / 13 / 16 CFEM: Gravel and Sand, some Silt and/or Clay	-6.07	SS	4	23	50		
17		SPT: 19 / 41 / 50 for 0.10 m (Refusal) CFEM: Sand and Gravel, some Silt, trace Clay	-6.47	SS	5	91	75		
18		Gravel and boulder.							
19		SPT: 38 / 31 / 26 / 23 CFEM: Gravel and Sand, some Silt, trace Clay	-7.31	SS	6	57	58		
20		End of Borehole							
21									
22									
23									
24									
25									
26									
27									
28									
29									



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154 Major's Path
St. John's, NL A1A 5A1
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Drilling Method: NQ, Diamond

Datum: LNT

Driller: Formation Drilling Ltd.

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH10

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 7, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm 20 40 60 80
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
ft m									
0 0		0 m LNT	0						
1 0									
2 0									
3 1									
4 1									
5 1									
6 2									
7 2		Harbour Bottom (-2.11 m)	-2.11						
8 2		SPT: 3 / 5 / 8 / 13 CFEM: Sand, some Gravel, trace Silt and/or Clay	-2.72	SS	1	13	25		
9 3									
10 3									
11 3			-3.52						
12 4		SPT: 22 / 41 / 31 / 25 CFEM: Sandy Gravel, some Silt and/or Clay	-4.13	SS	2	72	37		
13 4									
14 4									
15 5			-4.72						
16 5		SPT: 50 for 0.05 m (Refusal) Gravel. SS3; "N" Value = 50; Rec = 50%		SS	3	50	50		
17 5									
18 6		Gravel and Boulder.							
19 6									
20 6			-6.24						
21 7		SPT: 50 for 0.13 m (Refusal) Sand and gravel. SS4; "N" Value = 50; Rec = 60%	-6.36	SS	4	50	60		
22 7									
23 7		End of Borehole							
24 8									
25 8									
26 8									
27 9									
28 9									
29 9									



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Drilling Method: NQ, Diamond

Datum: LNT

Driller: Formation Drilling Ltd.

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of Geotech Borehole: BH11

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 19, 2007

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm 20 40 60 80
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	
ft m									
0 0		0 m LNT	0						
1 0									
2 0									
3 1									
4 1									
5 2									
6 2									
7 2		Harbour Bottom (-2.38 m)	-2.38						
8 2									
9 3		SPT: 1 / 2 / 8 / 18 CFEM: Sand and Gravel, trace Silt and/or Clay	-2.99	SS	1	10	46		
10 3		SPT: 12 / 19 / 42 / 50 for 0.08 m (Refusal) CFEM: Silty, Gravelly Sand, trace Clay	-3.52	SS	2	61	67		
11 4		SPT: 41 / 29 / 28 / 48 CFEM: Sandy Gravel, some Silt and/or Clay	-4.13	SS	3	57	71		
12 4		SPT: 49 / 50 for 0.13 m (Refusal) CFEM: Sand and Gravel, some Silt, trace Clay	-4.41	SS	4	50	91		
13 4			-4.79						
14 5		Gravel and boulder.		SS	5	50	75		
15 5		SPT: 50 for 0.10 m (Refusal) Gravel and sand.	-5.28	SS	6	50	100		
16 5		Gravel and boulder.							
17 6		SPT: 34 / 50 for 0.01 m (Refusal) CFEM: Sand and Gravel, some Silt and/or Clay	-5.81	SS	7	50	0		
18 6			-6.32						
19 6		Gravel and boulder.							
20 7		SPT: 50 for 0 m (Refusal) No sample recovery. SS7; "N" Value = 50; Rec = 0%	-6.93	SS	8	34	29		
21 7		Boulder.							
22 8		SPT: 18 / 20 / 14 / 15 CFEM: Sand and Gravel, some Silt, trace Clay							
23 8									
24 9		End of Borehole							
25 9									
26 9									
27 9									
28 9									
29 9									



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Phone: (709) 739-7270
Fax: (709) 753-5101

Drilling Method: NQ, Diamond

Datum: LNT

Driller: Formation Drilling Ltd.

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC1

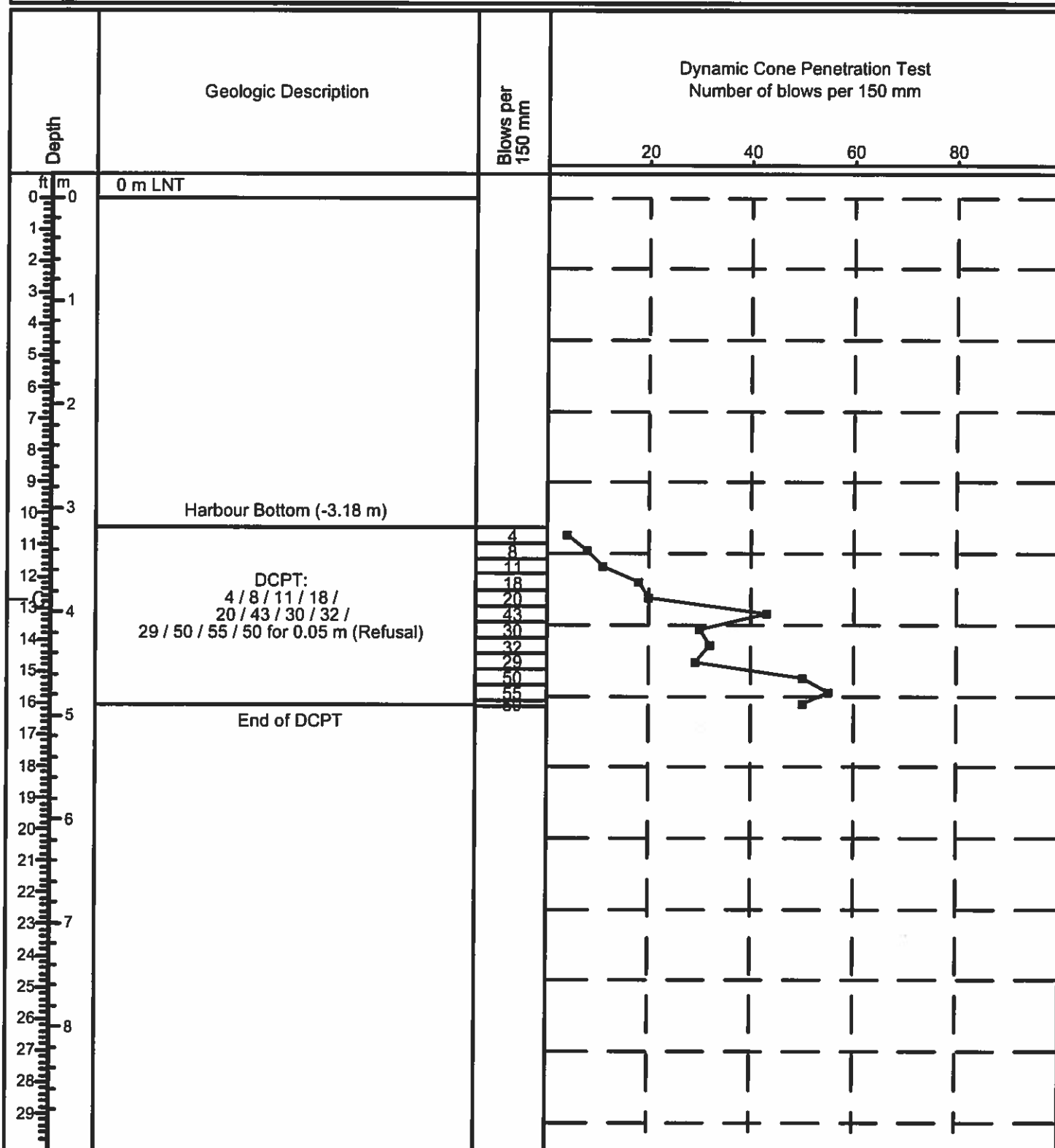
Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 17, 2007



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC2

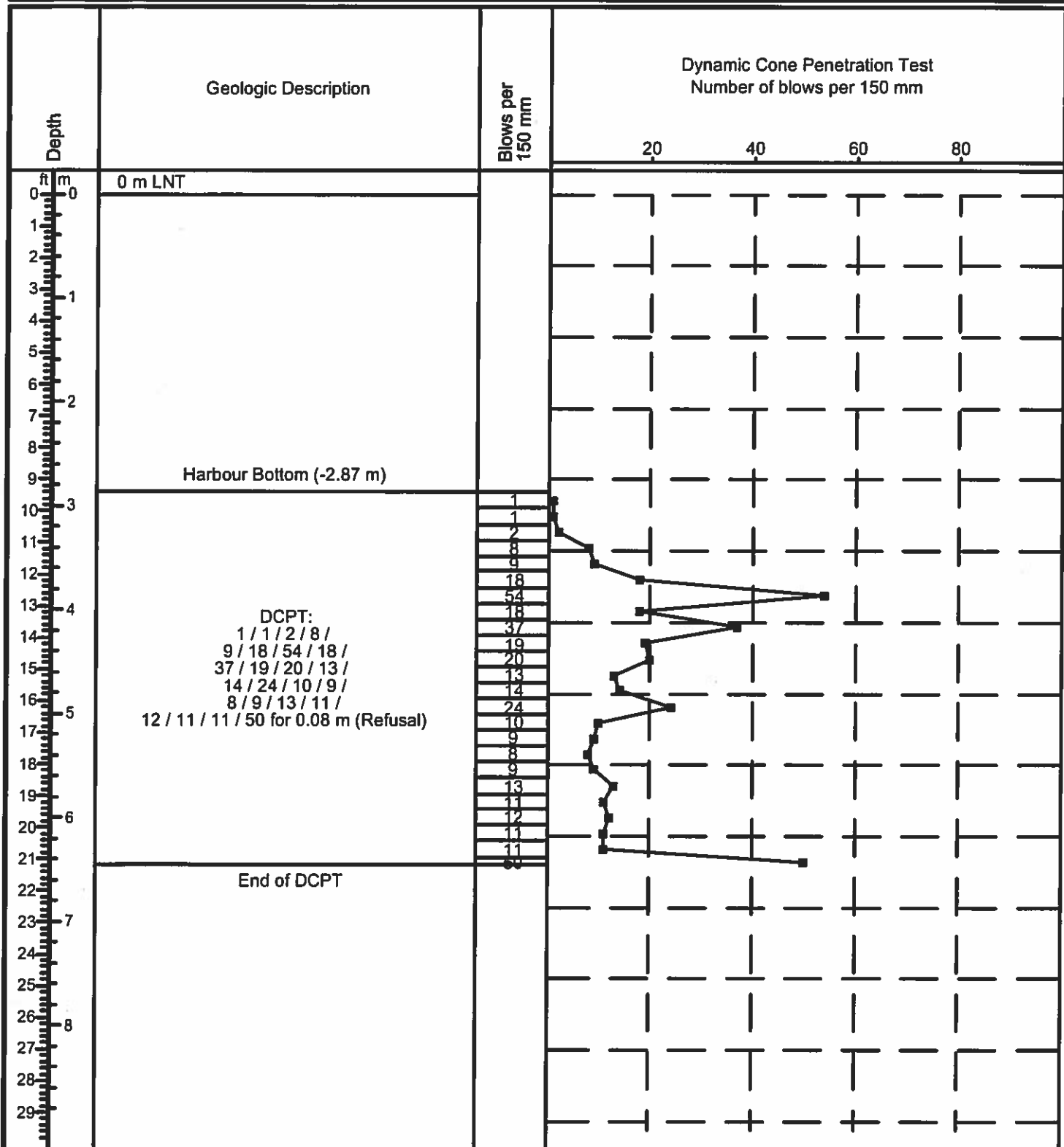
Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 15, 2007



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC3

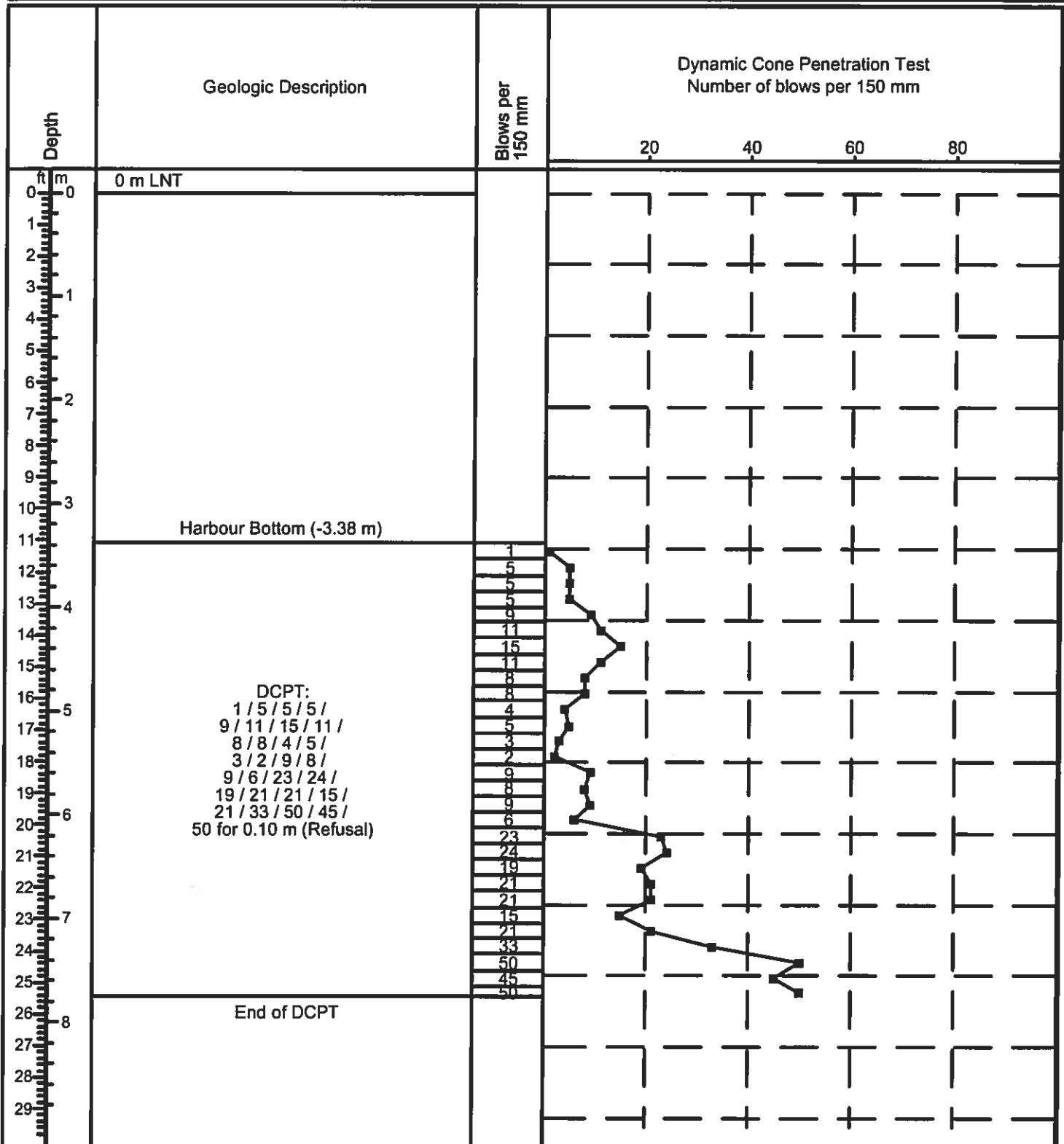
Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 15, 2007



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

Log of DCPT: PC4

Client: Public Works Government Services Canada

Project No: 508

Date: September 18, 2007



Drilling Method: DCPT

Datum: LNT

Driller: Formation Drilling Ltd.

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC5

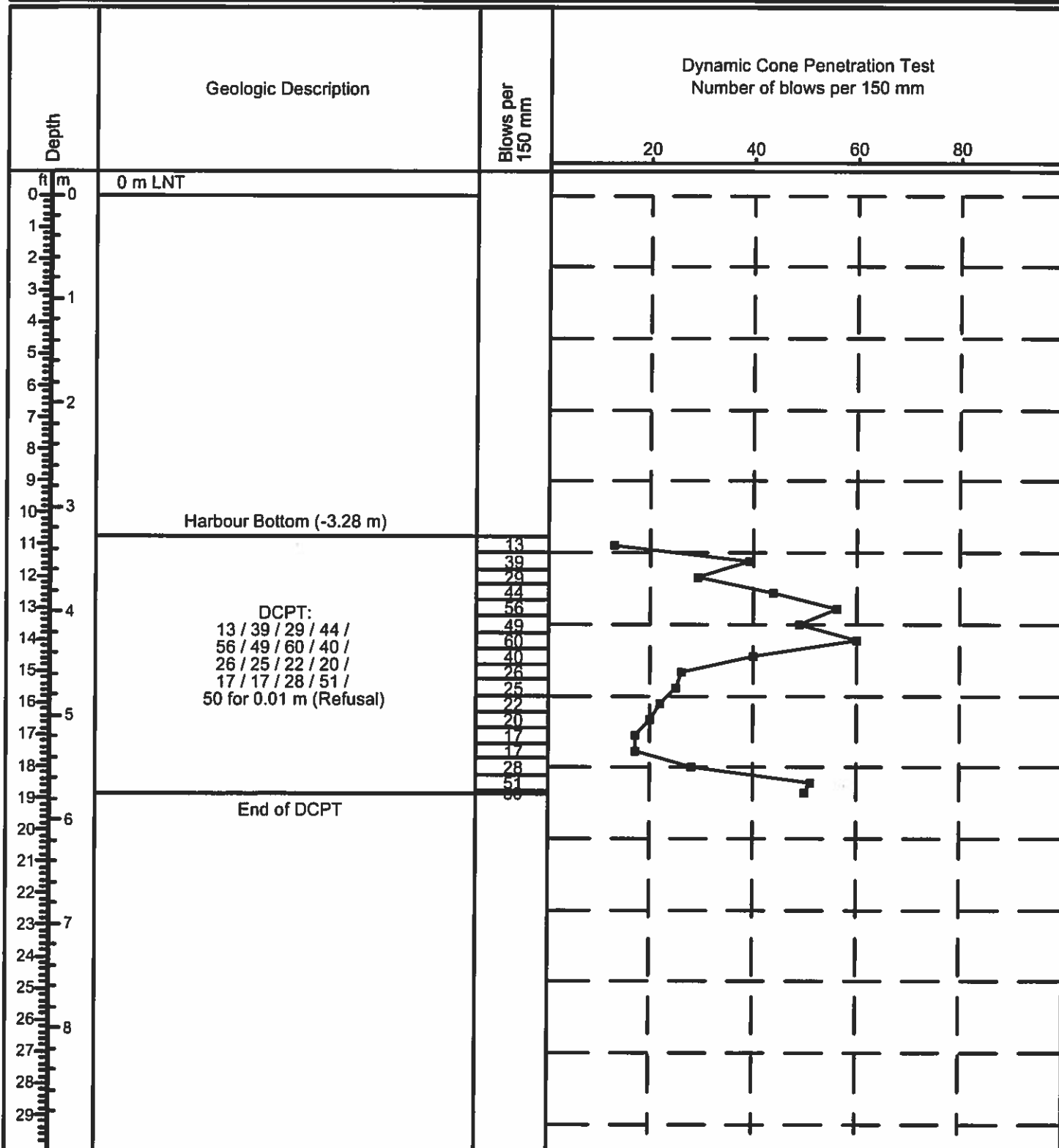
Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 18, 2007



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC6

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 14, 2007

Depth ft m	Geologic Description	Blows per 150 mm	Dynamic Cone Penetration Test Number of blows per 150 mm			
			20	40	60	80
0	0 m LNT	50				
1						
2	Harbour Bottom (-0.86 m)					
3	Pencone sank into soft sediment.					
4	DCPT: 50 for 0.0 m (Refusal)					
5	End of DCPT					
6						
7						
8						
9						
10		50				
11						
12						
13						
14						
15						
16						
17						
18						
19						
20		50				
21						
22						
23						
24						
25						
26						
27						
28						
29						



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Drilling Method: DCPT

Datum: LNT

Driller: Formation Drilling Ltd.

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Location: Old Perlican, NL

Client: Public Works Government Services Canada

Drilling Supervisor: Dave Howlett

Log of DCPT: PC7

Project No: 508

Date: September 14, 2007

Depth ft m	Geologic Description	Blows per 150 mm	Dynamic Cone Penetration Test Number of blows per 150 mm			
			20	40	60	80
0 0	0 m LNT					
1						
2						
3 1						
4						
5	Harbour Bottom (-1.75 m)					
6 2	DCPT: 33 / 45 / 44 / 50 for 0.08 m (Refusal)	33 45 44 50				
7	End of DCPT					
8						
9						
10 3						
11						
12						
13 4						
14						
15						
16 5						
17						
18						
19						
20 6						
21						
22						
23 7						
24						
25						
26 8						
27						
28						
29						



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC8

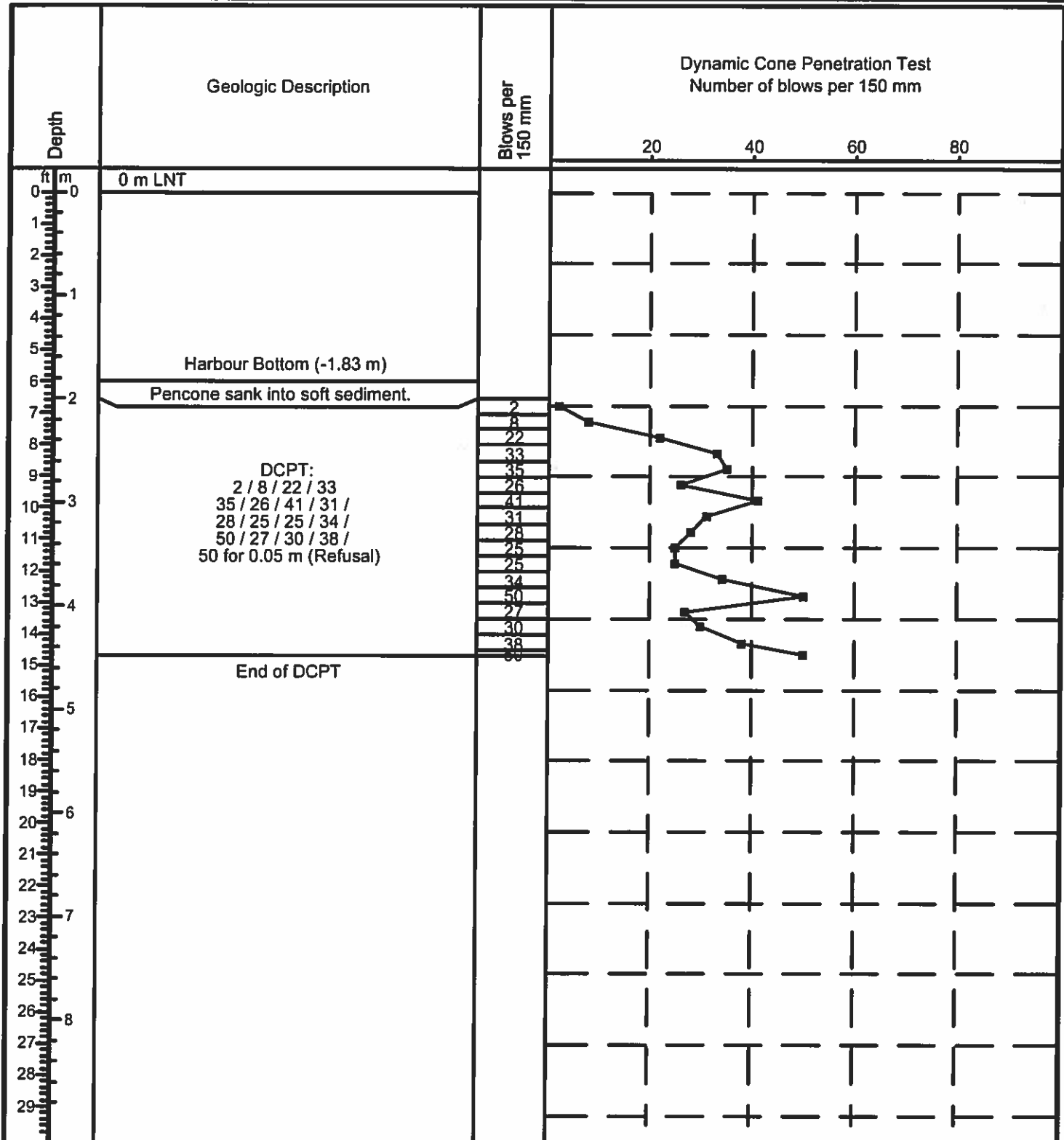
Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 14, 2007



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

Project: Marine Geotechnical Investigation

Log of DCPT: PC9

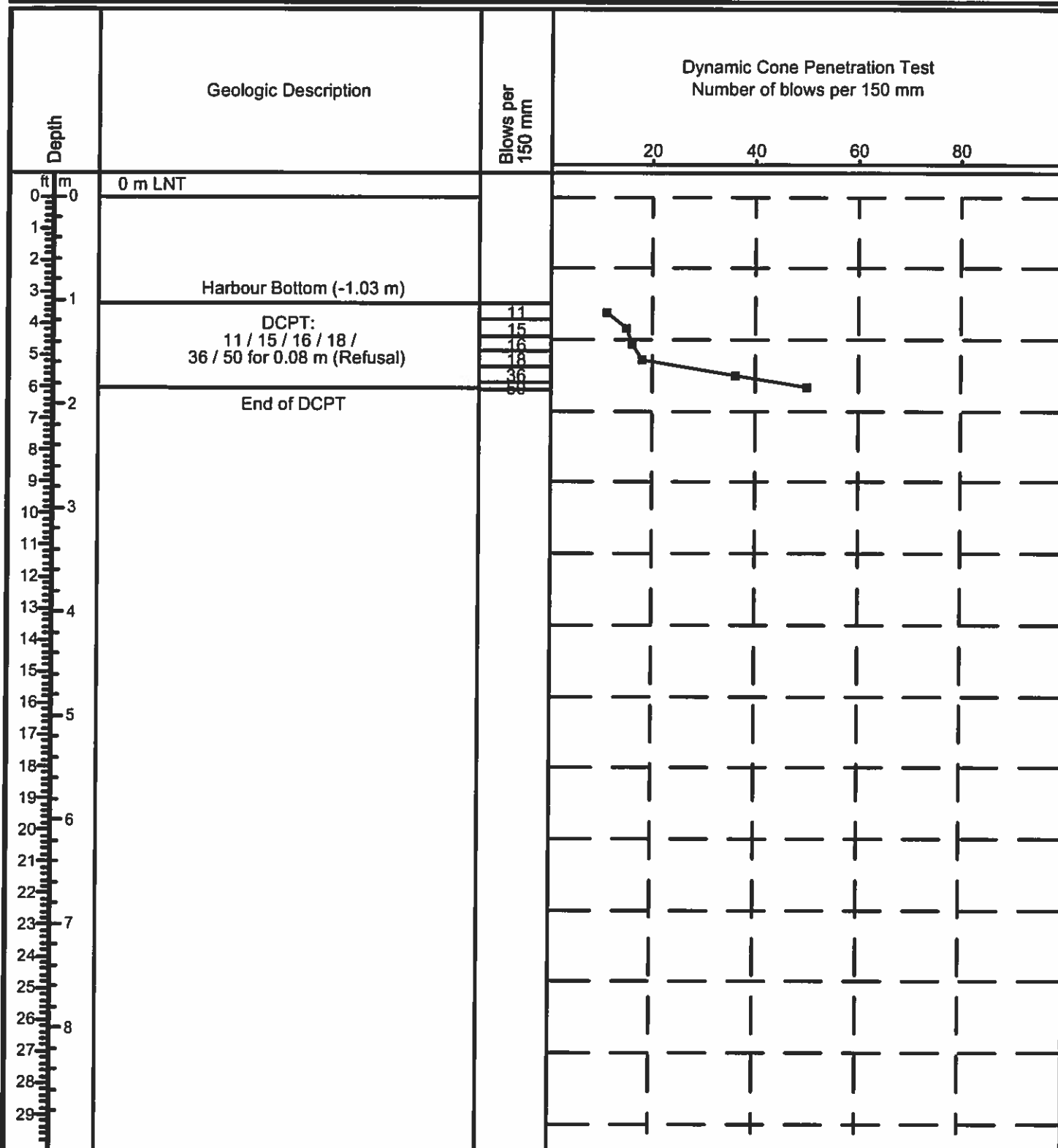
Location: Old Perlican, NL

Client: Public Works Government Services Canada

Project No: 508

Drilling Supervisor: Dave Howlett

Date: September 13, 2007



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Drilling Method: DCPT

Driller: Formation Drilling Ltd.

Datum: LNT

Sheet: 1 of 1

PROBE #	PENETRATION	TYPE OF MATERIAL
# 1	1.0 m	– FINE SILT
# 2	1.8 m	– FINE SILT
# 3	1.5 m	– SILT
# 4	1.0 m	– SILT
# 5	0.50 m	– CRAB SHELLS
# 6	0.70 m	– SILT
# 7	0.30 m	– SILT/PEBBLES
# 8	1.0 m	– SILT
# 9	2.0 m	– PEBBLES
# 10	2.0 m	– PEBBLES
# 11	1.0 m	– SILT/PEBBLES
# 12	1.0 m	– KELP/SILT
# 13	0.30 m	– KELP/SILT
# 14	1.5 m	– KELP
# 15	2.0 m	– FINE SAND/SILT
# 16	2.0 m	– FINE SILT
# 17	0.50 m	– FINE SILT
# 18	1.0 m	– KELP/ALGAE
# 19	0.30 m	– FINE SILT
# 20	0.50 m	– FINE SILT
# 21	1.5 m	– KELP
# 22	1.0 m	– FINE SILT/KELP
# 23	0.50 m	– KELP
# 24	0.30 m	– FINE SILT
# 25	0.30 m	– KELP
# 26	0.50 m	– ALGAE
# 27	0.15 m	– SAND/SILT
# 28	0.15 m	– BOULDERS

PROBE #	PENETRATION	TYPE OF MATERIAL
# 29	0.01m	– SAND THEN HARD
# 30	0.01m	– SAND THEN HARD
# 31	0.01m	– SAND THEN HARD
# 32	0.05m	– SAND THEN HARD
# 33	0.30m	– SAND THEN HARD
# 34	0.30m	– SAND THEN HARD
# 35	0.30m	– SAND THEN HARD
# 36	0.03m	– SAND THEN HARD
# 37	0.30m	– SAND THEN HARD
# 38	0.30m	– SAND THEN HARD
# 39	0.30m	– SAND THEN HARD
# 40	0.40m	– SAND THEN HARD
# 41	0.30m	– SAND THEN HARD
# 42	0.30m	– SAND THEN HARD
# 43	0.55m	– SAND THEN HARD
# 44	0.60m	– SAND THEN HARD
# 45	0.60m	– SAND THEN HARD
# 46	0.60m	– SAND THEN HARD
# 47	0.30m	– SAND THEN HARD
# 48	0.50m	– SAND THEN HARD
# 49	0.15m	– SAND THEN HARD
# 50	0.90m	– SAND THEN HARD
# 51	0.60m	– SAND THEN HARD
# 52	0.30m	– SAND THEN HARD
# 53	0.30m	– SAND THEN HARD