

Project: Marine Geotechnical Investigation
 Client: Dept. Fisheries and Oceans Canada
 Location: Fermeuse, NL

Log of Borehole: BH1
 Project No: 3088
 Date: June 7 - 8, 2016

Depth below LNT	SUBSURFACE PROFILE		SAMPLE				Standard Penetration Test "N" Value per 300 mm					
	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
0		0 m LNT	0									
2.58		Harbour bottom (-2.58 m LNT)	-2.58									
3.02		Split spoon sank 0.44 m into soft sediment under own weight before SPT.	-3.02									
3.59		SPT: 1 / 2 / 3 / 52 for 0.11 m, bouncing (refusal). CFEM: Gravel and Sand, trace Silt/Clay.	-3.59	SS	1 5 27							
4.18		Overburden: gravel and cobble.	-4.18	OB	-	46						
4.51		SPT: 19 / 52 for 0.16 m, bouncing (refusal). CFEM: Gravel and Sand, trace Silt/Clay.	-4.51	SS	2 52 27							
5.66		Overburden: gravel.	-5.66	OB	-	22						
6.85		SPT: 52 for 0.09 m, bouncing (refusal). No sample recovery.	-6.85	SS	4 52 11							
7.7		Broken bedrock: grey siltstone.	-7.7	RC	-	66	0					
8.5		SS4: "N" Value = 52; Recovery = 0%; SPT: 52 for 0.04 m, bouncing (refusal). No sample recovery.	-8.5	RC	-	46	0					
9.01		Bedrock: grey siltstone.	-9.01	RC	-	75	24					
10.0		End of Borehole	-9.01	RC	-	100	0					
10.0		End of Borehole	-9.01	RC	-	100	21					
10.0		End of Borehole	-9.01	RC	-	100	0					

Fracflow Consultants Inc.
 154 Major's Path
 St. John's, NL A1A 5A1
 Phone: (709) 739-7270
 Fax: (709) 753-5101

Drilling Method: NW casing / NQ coring
 Driller: Formation Drilling Ltd.

Datum: LNT
 Sheet: 1 of 1

Project: Marine Geotechnical Investigation
 Client: Dept. Fisheries and Oceans Canada
 Location: Fermeuse, NL

Log of Borehole: BH2
 Project No: 3088
 Date: June 8 - 9, 2016

Depth below LNT	SUBSURFACE PROFILE		SAMPLE				Standard Penetration Test "N" Value per 300 mm					
	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
0		0 m LNT	0									
2.98		Harbour bottom (-2.98 m LNT)	-2.98									
3.13		Split spoon sank 0.15 m into soft sediment under own weight before SPT.	-3.13									
3.59		SPT: 17 / 17 / 2 / 52 for 0.0 m, bouncing (refusal). CFEM: Gravel and Sand, some Silt/Clay.	-3.59	SS	1 3 50							
5.01		No recovery.	-5.01	OB	-	0						
5.01		SS2: "N" Value = 52; Recovery = 0%; SPT: 52 for 0.07 m, bouncing (refusal). No sample recovery.	-5.01	RC	-	58	0					
6.55		SPT: 1 / 1 / 1 / 1 / 1. CFEM: Sandy Silt/Clayey Gravel.	-6.55	SS	1 2 13							
6.96		Overburden: gravel.	-6.96	OB	-	38						
7.19		SPT: 14 / 52 for 0.07 m, bouncing (refusal). CFEM: Gravelly Sand, trace Silt/Clay.	-7.19	SS	2 52 33							
8.31		Overburden: broken bedrock.	-8.31	OB	-	18						
9.37		SS3: "N" Value = 52; Recovery = 0%; SPT: 52 for 0.03 m, bouncing (refusal). No sample recovery.	-9.37	RC	-	52						
9.93		SPT: 52 / 52 for 0.05 m, bouncing (refusal). Rock in split spoon shoe.	-9.93	RC	-	92						
10.4		End of Borehole	-10.4	RC	-	50	6					

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 Driller: Formation Drilling Ltd.

Datum: LNT
 Sheet: 1 of 1

Project: Marine Geotechnical Investigation
 Client: Dept. Fisheries and Oceans Canada
 Location: Fermeuse, NL

Log of Borehole: BH3
 Project No: 3088
 Date: June 11, 2016

Depth below LNT	SUBSURFACE PROFILE		SAMPLE				Standard Penetration Test "N" Value per 300 mm					
	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
0		0 m LNT	0									
5.54		Harbour bottom (-5.54 m LNT)	-5.54									
5.94		Split spoon sank 0.40 m into soft sediment under own weight before SPT.	-5.94									
6.55		SPT: 1 / 1 / 1 / 1 / 1. CFEM: Sandy Silt/Clayey Gravel.	-6.55	SS	1 2 13							
6.96		Overburden: gravel.	-6.96	OB	-	38						
7.19		SPT: 14 / 52 for 0.07 m, bouncing (refusal). CFEM: Gravelly Sand, trace Silt/Clay.	-7.19	SS	2 52 33							
8.31		Overburden: broken bedrock.	-8.31	OB	-	18						
9.37		SS3: "N" Value = 52; Recovery = 0%; SPT: 52 for 0.03 m, bouncing (refusal). No sample recovery.	-9.37	RC	-	52						
9.93		SPT: 52 / 52 for 0.05 m, bouncing (refusal). Rock in split spoon shoe.	-9.93	RC	-	92						
10.4		End of Borehole	-9.93	RC	-	50	6					

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 Sheet: 1 of 1

Project: Marine Geotechnical Investigation
 Client: DFO
 Location: Fermeuse, NL

Log of Borehole: BH4
 Project No: 3088
 Date: June 9, 2016

Depth below LNT	SUBSURFACE PROFILE		SAMPLE				Standard Penetration Test "N" Value per 300 mm					
	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
0		0 m LNT	0									
7.86		Harbour bottom (-7.86 m LNT)	-7.86									
9.3		Split spoon sank 1.44 m into soft sediment under own weight before SPT.	-9.3									
9.58		SPT: 17 / 25 / 2 / 1. CFEM: Sandy Gravelly Silt, trace Clay.	-9.58	SS	1 27 50							
9.91		Split spoon SS1 overlapped SS2 for 0.33 m.	-9.91	SS	2 2 42							
10.2		SPT: 1 / 1 / 1 / 1 / 5. CFEM: Sand and Gravel, trace Silt/Clay.	-10.2	SS	2 2 42							
11.2		Overburden: broken bedrock.	-11.2	OB	-	7						
11.2		SS3: "N" Value = 52; Recovery = 0%; SPT: 52 for 0.05 m, bouncing (refusal). No sample recovery.	-11.2	RC	-	65	12					
12.3		Bedrock: grey siltstone.	-12.3	RC	-	65	12					
12.3		End of Borehole	-12.3	RC	-	65	12					

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NOTES

1. HARD BOTTOM AND BEDROCK ELEVATIONS SHOWN ON DRAWINGS ARE TO BE CONSIDERED APPROXIMATE ONLY. THE BOREHOLE INFORMATION PROVIDED REPRESENT THE SOIL CONDITIONS AT THE BOREHOLE LOCATIONS ONLY. ANY INTERPRETATION OF AND FROM THE BOREHOLE INFORMATION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO BASE COST FOR HARBOUR DREDGING/CRIBSEAT EXCAVATION AND ASSOCIATED RISKS ACCORDINGLY.



E	ISSUED FOR TENDER	16/09/21
D	ISSUED FOR FINAL REVIEW	16/08/13
C	ISSUED FOR 99% REVIEW	16/08/08
revisions	date	
project	project	

**WHARF CONSTRUCTION
 FERMEUSE, NL**

BOREHOLE LOGS

designed	C. FISHER	conçu
date	APRIL, 2016	
drawn	R. SNOW	dessiné
date	APRIL, 2016	
approved		approuvé
date		
Tender	<i>John W. Snow</i>	Soumissionnaire
DFO Project Manager	<i>John W. Snow</i>	Administrateur de projets MPO
project number		no. du projet
	721920	
drawing no.		no. du dessin
	C11 OF 11	