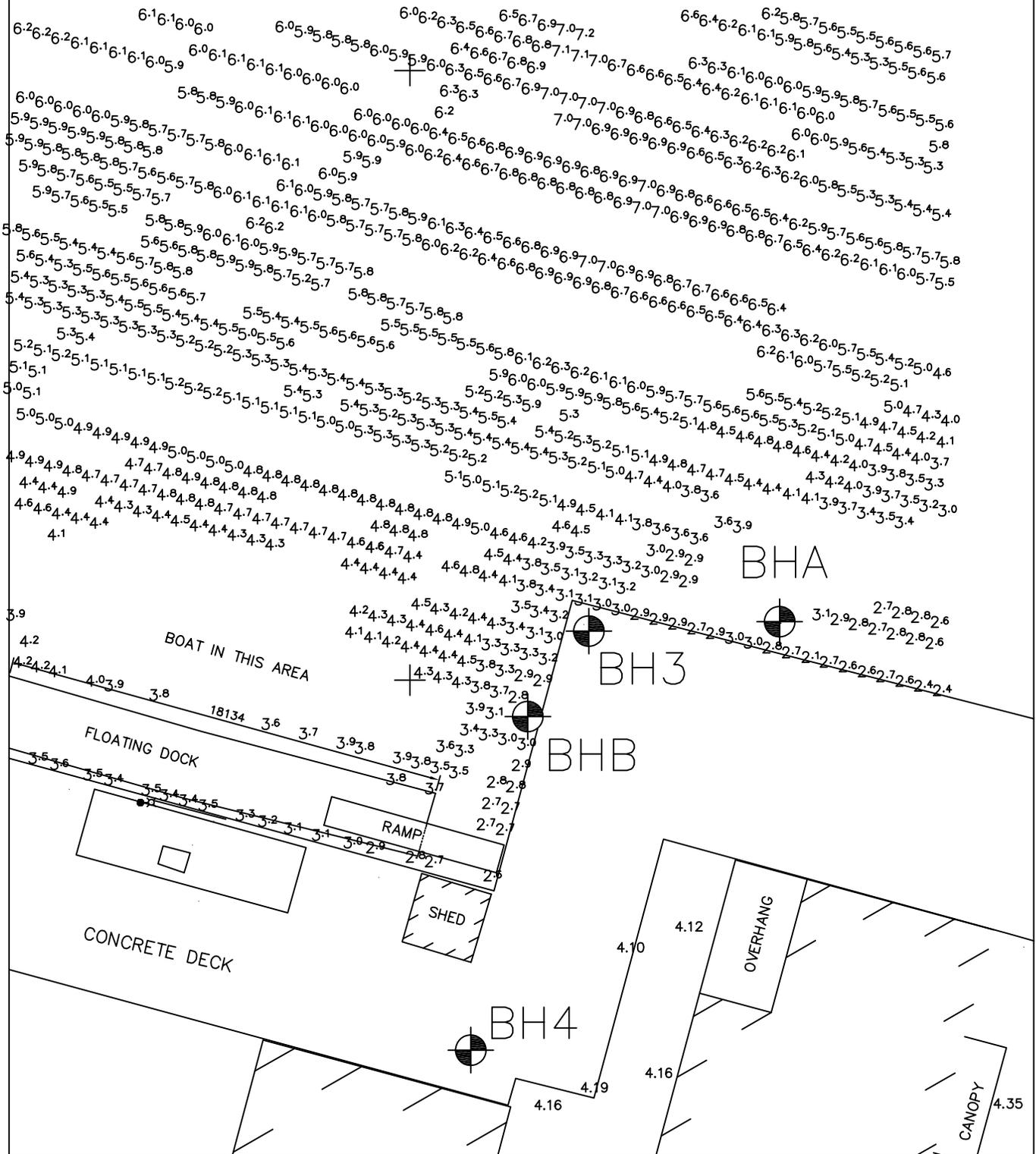

Appendix F: Borehole Logs

Construction & Refurbishment of Bay Class
SAR Lifeboat Marine Infrastructures
Burin, NL
R.116548.001

2022-01-27

~ W A T E R S O F L I T T L E B U R I N H A R B O U R ~



	Travaux publics et Services gouvernementaux Canada	designed by: DESIGNER date:
	CONSTRUCTION & REFURBISHMENT OF BAY CLASS SAR LIFEBOAT MARINE INFRASTRUCTURES BURIN, NL	Drawing title: BOREHOLE LOCATIONS
Plot Scale: 1:250	scale: échelle:	approved by:
date:	revisions:	project no.: R.116548.001 no. du projet:
		dwg no.: 1 OF 1 dessin no.:

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 (%)	20	40	60	80
0		0 m LNT	0									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10		Harbour Bottom (-3.14 m LNT)	-3.14									
11		SPT: 4 / 6 / 9 / 27 Gravel	-3.72	SS	1	15	12					
12												
13		SPT: 13 / 14 / 10 / 8 Gravel with rock chips	-4.3	SS	2	24	19					
14												
15		Gravel		OB	--		25					
16												
17		SPT: 5 / 3 / 4 / 4 Gravelly sand	-5.18									
18				SS	3	7	1					
19												
20		Gravel		OB	--		7					
21												
22		SPT: 5 / 7 / 8 / 14 CFEM: Gravel and Sand, trace Silt/Clay Sulfurous odour	-6.72									
23				SS	4	15	27					
24												
25		Gravel		OB	--		8					
26												
27		SPT: 14 / 22 / 19 / 12 CFEM: Gravelly Sand, trace Silt/Clay	-8.23									
28				SS	5	41	29					
29												
30		Boulders		OB	--		7					
31												
32				RC	--		45	0				
33												
34				RC	--		100	22				
35												
36												
37		Bedrock: Metamorphic rock		RC	--		40	0				
38												
39												
40												
41												
42				RC	--		52	0				
43												
44												
45		End of Borehole	-13.4									

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 (%)	20	40	60	80
0		0 m LNT	0									
1												
2												
3												
4												
5												
6												
7												
8												
9		Harbour Bottom (-2.87 m LNT)	-2.87									
10		SPT: 5 / 2 / 1 / 52 for 0.11 m (Refusal) No recovery		SS	1	3	0					
11			-3.43	OB	-	-	8					
12		Boulders		SS	2	54	0					
13		SPT: 54 for 0.10 m (Refusal) No recovery										
14												
15												
16												
17		Boulders		OB	-	-	25					
18												
19												
20												
21												
22			-6.79									
23		SPT: 3 / 3 / 4 / 5 CFEM: Sand and Gravel		SS	3	7	35					
24			-7.39									
25		Gravel		OB	-	-	8					
26			-8.08									
27		SPT: 14 / 21 / 16 / 13 Gravel		SS	4	37	6					
28			-8.69									
29		Boulders		OB	-	-	38					
30			-9.19									
31				RC	-	-	100	0				
32				RC	-	-	95	73				
33		Bedrock: Metamorphic rock		RC	-	-	100	51				
34				RC	-	-	100	41				
35				RC	-	-	100	41				
36			-11.2	RC	-	-	97	0				
37		End of Borehole										
38												



Project: Marine Geotechnical Investigations
 Location: Burin, NL
 Client: Public Works Government Services Canada
 Drilling Supervisor: Dave MacKinnon

Log of Geotech Borehole: BH3

Project No: 3023
 Date: February 10 - 11, 2012

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below Top of Wharf	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
0		Top of Wharf	3.95									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23		Harbour Bottom (7.39 m below top of wharf / -3.44 m LNT)	-3.44									
24		SPT: 1 / 1 / 2 / 1 Black organic material with cobbles	-4.05	SS	1	3	21					
25												
26												
27												
28												
29			-4.92									



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

Drilling Method: NQ Coring / NW Casing

Driller: Formation Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 2

Project: Marine Geotechnical Investigations
 Location: Burin, NL
 Client: Public Works Government Services Canada
 Drilling Supervisor: Dave MacKinnon

Log of Geotech Borehole: BH3

Project No: 3023
 Date: February 10 - 11, 2012

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below Top of Wharf	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
30		SPT: 3 / 2 / 3 / 5 Black organic material	-5.53	SS	2	5	17					
31												
32												
33	10											
34			-6.52									
35		SPT: 2 / 5 / 4 / 5 Dark brown fines with organics	-7.13	SS	3	9	29					
36	11											
37												
38			-8.01									
39												
40	12	SPT: 11 / 9 / 9 / 9 Top: 0.0 m - 0.19 m; Medium to coarse sand Bottom: 0.19 m - 0.25 m; Fine brown sand	-8.62	SS	4	18	42					
41												
42												
43	13											
44			-8.54									
45		SPT: 50 for 0.0 m (Refusal) SS: "N" value = 50; Recovery = 0%										
46	14											
47				RC	—		87	32				
48												
49	15											
50		Bedrock: Shale / limy sandstone										
51				RC	—		100	65				
52	16											
53			-12.6									
54												
55		End of Borehole										
56	17											
57												
58												
59												



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Drilling Method: NQ Coring / NW Casing

Driller: Formation Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 2

Project: Marine Geotechnical Investigations

Log of Geotech Borehole: BH4

Location: Burin, NL

Client: Public Works Government Services Canada

Project No: 3023

Drilling Supervisor: Dave MacKinnon

Date: February 8 - 9, 2012

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below Top of Wharf	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RGD (%)	20	40	60	80
0		Top of Wharf	4									
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11		Harbour Bottom (3.74 m below top of wharf / -0.26 m LNT)	0.26									
12												
13		SPT: 2 / 4 / 7 / 11 Black organic material with snail shells	-0.35	SS	1	11	21					
14												
15		SPT: 11 / 50 for 0.08 m (Refusal) Black organics with gravel	-1.03	SS	2	50	13					
16												
17												
18												
19												
20		SPT: 5 / 7 / 5 / 6 Fine to medium brown sand	-1.95	SS	3	12	32					
21												
22												
23												
24												
25		SPT: 4 / 12 / 25 / 31 Top: 0.0 m - 0.11 m; Black organic Bottom: 0.11 m - 0.22 m; Fine to medium brown sand	-3.45	SS	4	37	54					
26												
27												
28		Bedrock: Gray shale / siltstone	-4.06	RC	—	—	100					
29												
30												
31												
32												
33												
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36												
37												
38												
39												
40												
41												
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Drilling Method: NQ Coring / NW Casing

Driller: Formation Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 2

Project: Marine Geotechnical Investigations
 Location: Burin, NL
 Client: Public Works Government Services Canada
 Drilling Supervisor: Dave MacKinnon

Log of Geotech Borehole: BH4

Project No: 3023
 Date: February 8 - 9, 2012

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm			
Depth below Top of Wharf	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)	20	40	60	80
30		SPT: 50 for 0.0 m (Refusal) SS5: "N" Value = 50; Recovery = 0%										
31												
32				RC	--		96	89				
33	10											
34		Bedrock: Gray green shale / siltstone										
35												
36	11			RC	--		78	67				
37												
38			-7.69									
39	12	End of Borehole										
40												
41												
42	13											
43												
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52	16											
53												
54												
55	17											
56												
57												
58												
59												



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Sheet: 2 of 2