

[illegible]

SUBSURFACE PROFILE			SAMPLE				
Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	TV Value	Recovery (%)	RQD (%)
	SP-15, 50 to 0.0 m (Revised)		RC	1	100	100	69
	Bedrock Gray siltstone		RC	1	100	100	100
	End of Borehole	-11.8	RC	1	94	77	

Project Marine Geotechnical Investigation
 Location: South Dikka, NT
 Client: Public Works Government Service Canada
 Drilling Supervisor: Q Zhang

Project No: 3003
 Date: September 24-25, 2010

Darius: 0 m LNT
 Sheet 2 of 2

Project: Martin Geotechnical Investigation
Location: South Dille, N.L.
Client: Public Works Government Service Canada
Drilling Supervisor: Q. Zhang

Project No: 3003
Date: September 27, 2010

Log of Geotech Borehole: BH2

SUBSURFACE PROFILE		SAMPLE						
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								
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								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51								
52								
53								
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								

Project: Marine Geotechnical Investigation
Location: South Delta, NL
Client: Public Works Government Service Canada
Drilling Supervisor: Q. Zhang

Project No: 3003
Date: September 27, 2000

SUBSURFACE PROFILE		SAMPLE						
Symbol	Geologic Description	Depth below LNT	Elevation (m)	Sample Type	Sample No.	% Value	Recovery (%)	RQD (%)
		39.8	-9.22	SS	1	1	81	
		39.5		SS	1	1	81	
		39.2		SS	1	1	81	
		38.9		SS	1	1	81	
		38.6		SS	1	1	81	
		38.3		SS	1	1	81	
		38.0		SS	1	1	81	
		37.7		SS	1	1	81	
		37.4		SS	1	1	81	
		37.1		SS	1	1	81	
		36.8		SS	1	1	81	
		36.5		SS	1	1	81	
		36.2		SS	1	1	81	
		35.9		SS	1	1	81	
		35.6		SS	1	1	81	
		35.3		SS	1	1	81	
		35.0		SS	1	1	81	
		34.7		SS	1	1	81	
		34.4		SS	1	1	81	
		34.1		SS	1	1	81	
		33.8		SS	1	1	81	
		33.5		SS	1	1	81	
		33.2		SS	1	1	81	
		32.9		SS	1	1	81	
		32.6		SS	1	1	81	
		32.3		SS	1	1	81	
		32.0		SS	1	1	81	
		31.7		SS	1	1	81	
		31.4		SS	1	1	81	
		31.1		SS	1	1	81	
		30.8		SS	1	1	81	
		30.5		SS	1	1	81	
		30.2		SS	1	1	81	
		29.9		SS	1	1	81	
		29.6		SS	1	1	81	
		29.3		SS	1	1	81	
		29.0		SS	1	1	81	
		28.7		SS	1	1	81	
		28.4		SS	1	1	81	
		28.1		SS	1	1	81	
		27.8		SS	1	1	81	
		27.5		SS	1	1	81	
		27.2		SS	1	1	81	
		26.9		SS	1	1	81	
		26.6		SS	1	1	81	
		26.3		SS	1	1	81	
		26.0		SS	1	1	81	
		25.7		SS	1	1	81	
		25.4		SS	1	1	81	
		25.1		SS	1	1	81	
		24.8		SS	1	1	81	
		24.5		SS	1	1	81	
		24.2		SS	1	1	81	
		23.9		SS	1	1	81	
</								

SUBSURFACE PROFILE		SAMPLE	
Depth below INT Symbol Geologic Description Elevation (m)		Sample Type	Sample No. "N" Value Recovery (%) RQD (%)
0 (m)	0 m INT		Standard Penetration Test "N" Value per 300 mm
1			20 40 60 80
2			
3			
4			
5			
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			

Fractech Consultants Inc.
 154 Village Park
 Suite 200
 Phoenix, AZ 85016
 Phone: (700) 239-2720
 Fax: (700) 753-5101

Drilling Method: N/A casing / NQ casing
 Driller: Formation Drilling Ltd.

Drawn: o at LMT
 Sheet: 1 of 2

Log of Geotech Borehole: BH3

Project: Marine Geotechnical Investigation
 Location: South Oahu, HI
 Client: Public Works Government Services Canada
 Drilling Supervisor: Q. Zhang

Project No: 3003
 Dates: September 28 & 30, 2010

Log of Geotech Borehole: BH3

Project: Marine Geotechnical Investigation
 Location: South Delta, XL
 Client: Public Works Government Service Canada
 Drilling Supervisor: Q. Zhang

Project No: 3003
 Date: September 28 & 30, 2010

SUBSURFACE PROFILE				SAMPLE			
Depth below LWT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	*N* Value	Recovery (%)
				ROD (%)			
30							
31			-6.76				
32		Ocean Bottom (6.76 m LWT)					
33		SPT 2.1 / 11.2		SS	1	2	13
34		Black organic material	-10.4				
35							
36			-11				
37		100% CLAY (6.76 to 10.4 m Below)		SS	2	50	80
38		CEM, Sand and Gravel, Loose, Silty and Clay	-11.3				
39				RC	--		96
40				RC	--		100
41							
42							
43		Bedrock, Grey siltstone		RC	--		85
44							
45							
46							
47			-14.3				
48		End of Borehole		RC	--		87
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							

Standard Penetration Test
 N Value per 300 mm

20 40 60 80

Friction Consultants Inc.
 154 Marine Park
 3000 Marine Drive
 Richmond, BC V6V 1S1
 Tel: (604) 239-2720
 Fax: (604) 733-5101

Drilling Method: N/V casing / NO coring

Driller: Remington Drilling Ltd.

Datum: o.m. LWT

Sheet: 2 of 2

SUBSURFACE PROFILE		SAMPLE						
Depth below LANT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	Recovery (%)	RQD (%)
0	G.M.L.A.N.T.		0					
1								
2								
3								
4								
5								
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								

Project: Marine Geotechnical Investigation
 Location: South China, NL
 Client: Public Works Government Service Canada
 Drilling Supervisor: Q. Zhang

Project No: 3003
 Date: September 30, 2010

Log of Geotech Borehole: B14

Fracture Consultants Inc.
 154 Major's Park
 Suite 200
 Phoenix (709) 739-7270
 Fax: (709) 733-5101

Drilling Method: N/V casing / NO casing
 Driller: Formation Drilling Ltd.

Duration: 0 m LANT
 Sheet 1 of 2

Log of Geotech Borehole: BH4

Project: Marine Geotechnical Investigation
 Location: South Ditch, NJ
 Client: Public Works Government Service Canada
 Drilling Supervisor: Q. Zhang

Project No: 3003
 Date: September 30, 2010

SUBSURFACE PROFILE			SAMPLES				Standard Penetration Test "N" Value per 500 mm
Depth below LNT	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample No.	"N" Value	
30							
31							
32							
33							
34							
35							
36		Clayey Silt (1-10.55 m LNT)	-10.9				
37		Silt/clayey sand 0.40 m water content into soil	-11.4				
38		Silt/clayey sand 0.20 m	-12	SS	1	2	0
39		No sample recovery	-12.5				
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							

SPPT 50 for 0.05 m (Refusal)
 No sample recovery
 SSPT: "N" Value = 80, Recovery = 0%

Backfill: Grey siltsone


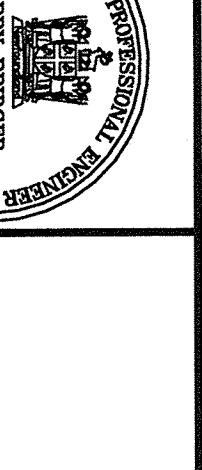
End of Borehole

-15.1

RC - 100 83
 RC - 83 82
 RC - 100 100

Drilling Method: NW casing / NO casing
 Driller: Penetration Drilling Ltd.

Datum: 0 m LNT
 Sheet 2 of 2

	Stamp	<p>NOTES:</p> <ol style="list-style-type: none"> 1. DO NOT SCALE FROM DRAWING. 2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE PRIOR TO PROCEEDING WITH ANY PORTION OF THIS WORK.
	Stamp	<p>PROVINCE OF NEWFOUNDLAND AND LABRADOR</p> <p>PEEQ PERMIT HOLDER</p> <p>This Permit Allows</p> <p>DILLON CONSULTING LIMITED</p> <p>To Practice Professional Engineering in Newfoundland and Labrador. Permit No. as Issued by PEOUL: DD161 which is valid for the year 2015</p>

2.	REVISED RE-ISSUED FOR TENDER	APR 2015
1	REVISED RE-ISSUED FOR TENDER	MAY 2015
0	ISSUED FOR TENDER	MAY 2015
A	ISSUED FOR FINAL REVIEW	JUN 2015
revision		date
project	DEVELOPMENT OF DILDO HARBOUR DILDO SOUTH, NL	project
designed		designed
drawn		drawn
checked		checked
approved		approved
date		date
designed by	B. BRUGER	designed by
drawn by	B. SCAPLEN	drawn by
checked by	MARCH 06, 2015	checked by
approved by	MARCH 06, 2015	approved by
date		date
project number	R.076536.001	project number
revision		revision
drawn no.	C8 OF 9	drawn no.