
Appendix A

**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada

Proj No. 10456.75

BOREHOLE

Project Saint John Ferry Terminal Marshalling Yard

Date Drilled 2018/01/11

BH18-01

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Location 170 Digby Ferry Road, Saint John, NB

Ground Level, m
10.18Datum:
ChartLogged
By BJS

DEPTH m	SAMPLE				LOG	DESCRIPTION
	No	TYPE	N (RQD)	REC (mm)		
0	1	F			0.10	ASPHALT
						grey SAND and GRAVEL, trace Silt (Crushed Rock)
	2	S	50+	75	0.61	light brown SAND and GRAVEL, some Silt
	3	F				
1	4	S	50+	460		
					1.52	dark brown SAND and GRAVEL, some Silt
	5	S	50+	340		
2					2.13	
						-EOH at 2.13 metres
						-Grounwater not encountered
						-Frost depth at time of drilling at approximately 1.52 metres

0 25 50 75 100 Undrained Shear Strength - kPa

○ Unconfined Compression

⊕ Field Vane Test

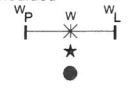
■ Pocket Penetrometer

⊗ Remoulded

Water Content & Atterburg Limits

Dynamic Penetration Test, blows/0.3m

Standard Penetration Test, blows/0.3m



0 10 20 30 40 50 60 70 80 90 100

**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada

Proj No. 10456.75

BOREHOLE

Project Saint John Ferry Terminal Marshalling Yard

Date Drilled 2018/01/11

BH18-02
Page 1 of 1

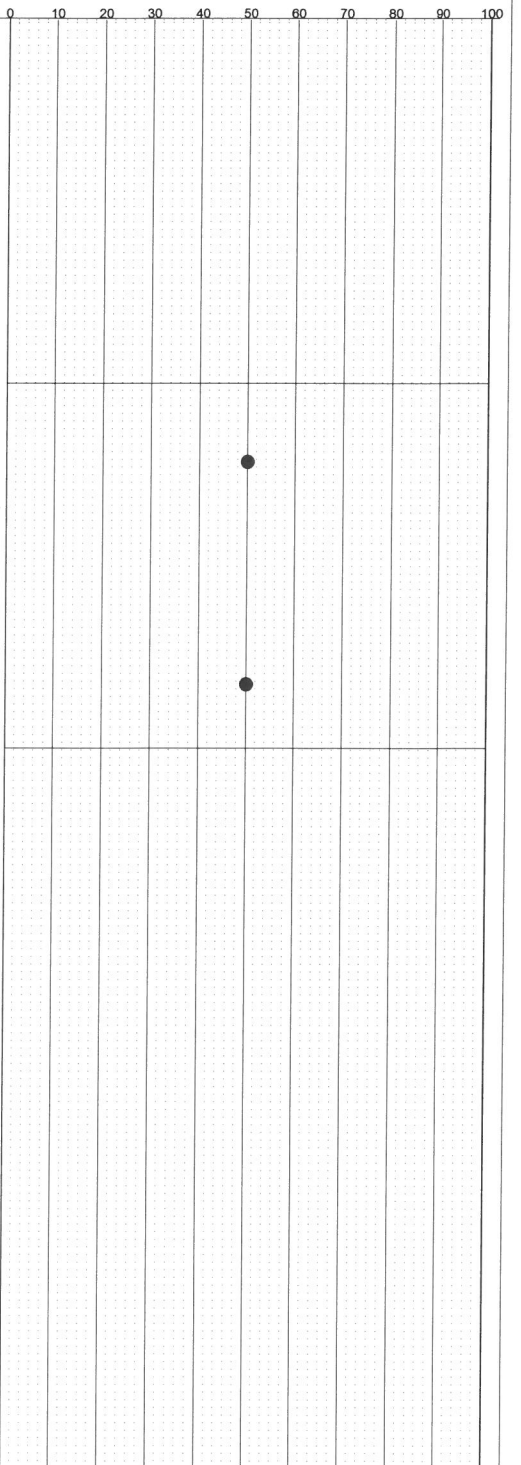
Location 170 Digby Ferry Road, Saint John, NB

Ground Level, m
9.93Datum:
Chart

Logged By BJS

0 25 50 75 100
Undrained Shear Strength - kPa○ Unconfined Compression
⊕ Field Vane Test
■ Pocket Penetrometer
⊗ RemouldedWater Content & Atterburg Limits
Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3mw_p w_L
★

DEPTH m	SAMPLE				LOG	DESCRIPTION
	No	TYPE	N (RQD)	REC (mm)		
0	1	F			0.09	ASPHALT 9.85
						grey SAND and GRAVEL, trace Silt (Crushed Rock)
					0.61	9.32
						light brown SAND and GRAVEL, some Silt
1	2	S	50+	520		
					1.52	8.41
	3	S	50+	550		dark brown SAND and GRAVEL, trace Silt
2					2.13	7.80
						-EOH at 2.13 metres
						-Groundwater not encountered
						-Frost at time of drilling at approximately 1.22 metres



**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada

Proj No. 10456.75

BOREHOLE

Project Saint John Ferry Terminal Marshalling Yard

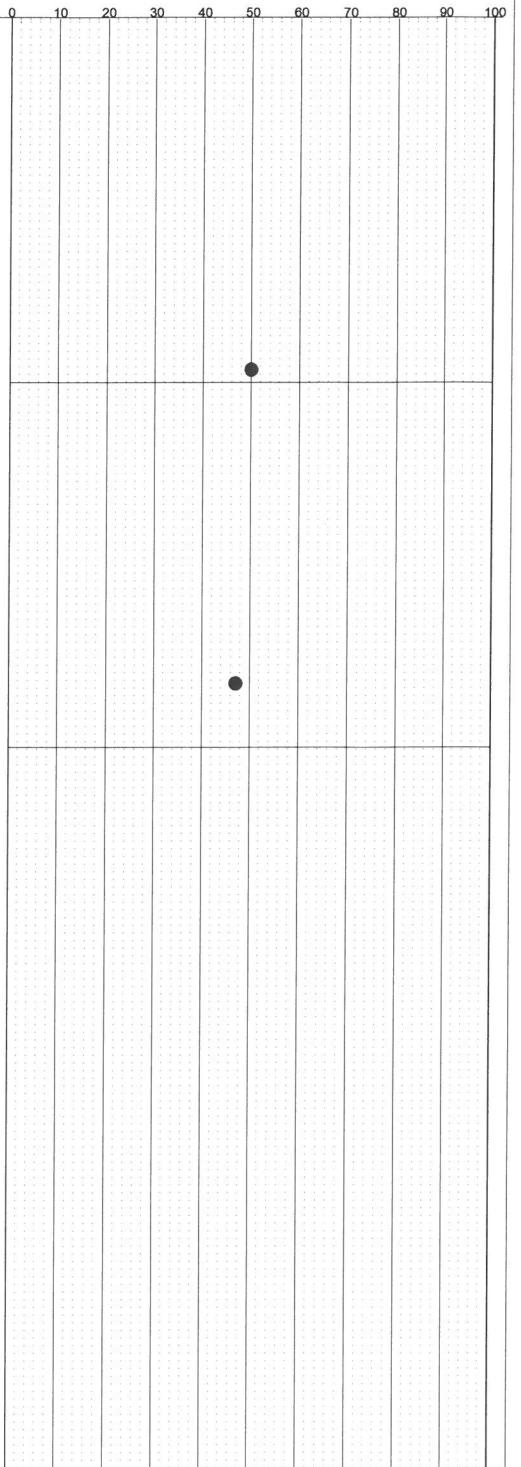
Date Drilled 2018/01/11

BH18-03
Page 1 of 1

Location 170 Digby Ferry Road, Saint John, NB

Ground Level, m
9.90Datum:
ChartLogged
By BJS0 25 50 75 100
Undrained Shear Strength - kPa○ Unconfined Compression
⊕ Field Vane Test
■ Pocket Penetrometer
⊗ RemouldedWater Content & Atterburg Limits
Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3mw_p w_L
★

DEPTH m	SAMPLE				LOG	DESCRIPTION
	No	TYPE	N (RQD)	REC (mm)		
0	1	F			0.10	ASPHALT
					9.80	grey SAND and GRAVEL, trace Silt (Crushed Rock)
					0.46	9.44
						light brown SAND and GRAVEL, trace Silt
1	2	S	50+	75		
	3	F				
					1.52	8.38
	4	S	47	270		dark brown SAND and GRAVEL, trace Silt
2					2.13	7.77
						-EOH at 2.13 metres
						-Groundwater not encountered
						-Frost at time of drilling at approximately 1.52 metres



**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada

Proj No. 10456.75

BOREHOLE

Project Saint John Ferry Terminal Marshalling Yard

Date Drilled 2018/01/11

BH18-04
Page 1 of 1

Location 170 Digby Ferry Road, Saint John, NB

Ground Level, m
9.89Datum:
ChartLogged
By BJS0 25 50 75 100
Undrained Shear Strength - kPa○ Unconfined Compression
⊕ Field Vane Test
■ Pocket Penetrometer
⊗ RemouldedWater Content & Atterburg Limits
Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3mw_p w w_L
★

DEPTH m	SAMPLE				LOG	DESCRIPTION
	No	TYPE	N (RQD)	REC (mm)		
0	1	F			0.06	ASPHALT grey SAND and GRAVEL, trace Silt (Crushed Rock)
					0.61	light brown SAND and GRAVEL, some Silt
1	2	S	50+	100		
	3	F				
	4	S	50+	310		
2					2.13	
						-EOH at 2.13 metres
						-Groundwater not encountered
						-Frost at time of drilling at approximately 1.52 metres

0 10 20 30 40 50 60 70 80 90 100

**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada				Proj No. 10456.75		BOREHOLE	
Project Saint John Ferry Terminal Marshalling Yard				Date Drilled 2018/01/11		BH18-05	
Location 170 Digby Ferry Road, Saint John, NB						Page 1 of 1	
Ground Level, m 9.79		Datum: Chart		Logged By BJS			

DEPTH m	SAMPLE				LOG	DESCRIPTION	
	No	TYPE	N (RQD)	REC (mm)			
0	1	F			0.08 ASPHALT	9.71	
					grey SAND and GRAVEL, trace Silt (Crushed Rock)		
					0.46	9.33	*
					light brown SAND and GRAVEL, some Silt		
1	2	S	50+	180			
	3	F					*
					1.52	8.27	
	4	S	37	410			*
					dark brown Gravelly SAND, trace SILT		
2					2.13	7.66	
					-EOH at 2.13 metres		
					-Groundwater not encountered		
					-Frost at time of drilling at approximately 1.52 metres		

0 25 50 75 100

Undrained Shear Strength - kPa

○ Unconfined Compression
⊕ Field Vane Test
□ Pocket Penetrometer
⊗ Remoulded

Water Content & Atterburg Limits
Dynamic Penetration Test, blows/0.3m
Standard Penetration Test, blows/0.3m

W_p W_L W_U

0 10 20 30 40 50 60 70 80 90 100

**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client		Public Works & Government Services Canada		Proj No.		10456.75		BOREHOLE	
Project		Saint John Ferry Terminal Marshalling Yard		Date Drilled		2018/01/11		BH18-06 Page 1 of 1	
Location		170 Digby Ferry Road, Saint John, NB							
Ground Level, m		10.04		Datum:		Chart		Logged By	
						BJS			

DEPTH m	SAMPLE				LOG	DESCRIPTION
	No	TYPE	N (RQD)	REC (mm)		
0	1	F			0.08 ASPHALT	9.96
					grey SAND and GRAVEL, trace Silt (Crushed Rock)	
					0.46	9.58
					light brown SAND and GRAVEL, some Silt	
1	2	S	50+	420		
					1.22	8.82
					dark brown Gravelly SAND, trace Silt	
	3	S	31	400		
2					2.13	7.91
					-EOH at 2.13 metres	
					-Groundwater not encountered	
					-Frost at time of drilling at approximately 0.91 metres	

○ Unconfined Compression ■ Pocket Penetrometer

⊕ Field Vane Test ⊗ Remoulded

Water Content & Atterburg Limits

Dynamic Penetration Test, blows/0.3m

Standard Penetration Test, blows/0.3m

Undrained Shear Strength - kPa

0 25 50 75 100

W_p W_L

0 10 20 30 40 50 60 70 80 90 100

**GEMTEC**CONSULTING ENGINEERS
AND SCIENTISTS**BOREHOLE LOGS**

Client Public Works & Government Services Canada					Proj No. 10456.75		BOREHOLE	
Project Saint John Ferry Terminal Marshalling Yard					Date Drilled 2018/01/11		BH18-07	
Location 170 Digby Ferry Road, Saint John, NB							Page 1 of 1	
Ground Level, m 10.21		Datum: Chart		Logged By BJS		<div style="display: flex; justify-content: space-between;"> <div> <p>0 25 50 75 100</p> <p>Undrained Shear Strength - kPa</p> </div> <div> <p>0 10 20 30 40 50 60 70 80 90 100</p> </div> </div> <div style="display: flex; justify-content: space-between; font-size: small;"> <div> <p>○ Unconfined Compression</p> <p>⊕ Field Vane Test</p> </div> <div> <p>■ Pocket Penetrometer</p> <p>⊗ Remoulded</p> </div> </div> <div style="text-align: center; margin-top: 10px;"> <p>Water Content & Atterburg Limits</p> <p>Dynamic Penetration Test, blows/0.3m</p> <p>Standard Penetration Test, blows/0.3m</p> </div> <div style="text-align: center;"> <p>w_p w w_L</p> <p>★</p> <p>●</p> </div>		
DEPTH m	SAMPLE			LOG	DESCRIPTION			
	No	TYPE	N (RQD)	REC (mm)				
0	1	F			0.10	ASPHALT 10.11		
						grey SAND and GRAVEL, trace Silt (Crushed Rock)		
					0.46	9.75		
						light brown SAND and GRAVEL, trace Silt		
1	2	S	50+	100				
	3	F						
					1.52	8.69		
	4	S	21	480		dark brown SAND and GRAVEL, trace Silt		
2					2.13	8.08		
						-EOH at 2.13 metres -Groundwater not encountered -Frost depth at time of drilling at approximately 1.52 metres		