BOREHOLE LOG

PROJET: Iqaluit Airport
SITE: Terminal
BOREHOLE NO.: IQA_AERO_DDH_04
COORDINATES: X:522924.0039 Y:7069385.2871
ELEVATION: 21
START DATE: 01-05-2013
END DATE: 02-05-2013

Instrumentation
- Temperature sensor (Decagon ECT)
- Temperature sensor (YSI 44033)
- Volumetric water content, temperature and bulk electrical conductivity (Decagon 5ET)
- Volumetric water content (Decagon EC-5)
- Pressure sensor

Instrumentation
- PVC casing

Sampling method
- Excavation
- Diamond core
- Slit spoon
- Destructive

Recovery
- Recovered
- No recovery

Sample state
- *Ud-F* Undisturbed and frozen
- *Ud-Uf* Undisturbed and unfrozen
- *D-F* Disturbed and frozen
- *D-Uf* Disturbed and unfrozen

C/H/N
- *w* Water content (%)
- *p* Bulk density (g/cm-3)
- C Carbon (%)
- H Hydrogen (%)
- N Nitrogen (%)

Depth (m)	Stratigraphy	Soil description	Sampling method	Recovery	Sample state	Sample name	Water content (%)	Salinity (ppm)	Grain size G	Grain size S	Grain size M-C	Consistency wl	Consistency wp	Consistency Ip	Consistency IL	USCS	Consol. kPa 25	Consol. kPa 50	Consol. kPa 100	C/H/N w	C/H/N p	C/H/N C	C/H/N H	C/H/N N	Radiocarbon dates 14C (BP)	±	Material
0.00		Asphalt (0,12 m)																									
		Brown sand and gravel (embankment). Pore ice.			D-Uf	13_04_12-42																					
					D-Uf	13_04_42-60																					
-1.00					D-Uf	13_04_60-130	2.1		21.4	76.6	2.0					SP											
					D-Uf	13_04_130-190																					
-2.00		Beige laminated fine sand with occasional oxydized layer. Pore ice.																									

Version 1.4 E. L'Hérault and A-S. Carbonneau (2015-06)

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- ρ Bulk density (g/cm-3)
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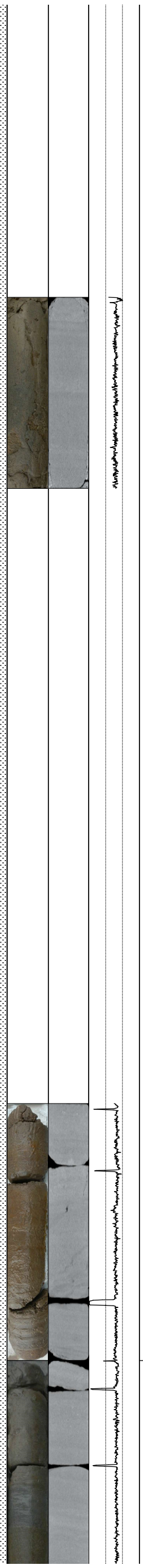

Depth (m)	Stratigraphy	Soil description	Sampling method	Recovery	Sample state	Sample name	Volume (%) Soil / Ice / Air	Water content (%)	Salinity (ppm)	Grain size G	Grain size S	Grain size M-C	Consistency wl	Consistency wp	Consistency Ip	Consistency IL	USCS	Consol. kPa 25	Consol. kPa 50	Consol. kPa 100	C/H/N w	C/H/N ρ	C/H/N C	C/H/N H	C/H/N N	Radiocarbon dates 14C (BP)	±	Material
-3.00					Ud-F	13_04_310-324		25.5																				
						13_04_324-334		22.1		0.0	89.9	10.1	23.4	23.1	0.4	-2.7	SP-SM											
						13_04_334-345		23.0																				
-4.00					Ud-F	13_04_421-445		25.4																				
					Ud-F	13_04_445-458		22.4		0.1	68.6	31.2	25.0				SM											
						13_04_458-459		20.5																				
					Ud-F	13_04_459-469		28.5		0.0	36.5	63.5	26.7	20.0	6.7	1.3	CL-ML											
						13_04_469-480		25.9																				
						13_04_480-489		25.8																				
		Grey laminated silty sand. Occasional organic matter layer. Pore ice.			Ud-F	13_04_489-492		22.5																				
-5.00						13_04_492-505		23.9		0.0	81.2	18.8	26.7				SM											
					Ud-F	13_04_508-520		25.0		0.0	61.7	38.3	25.3	22.4	2.9	0.9	SM											

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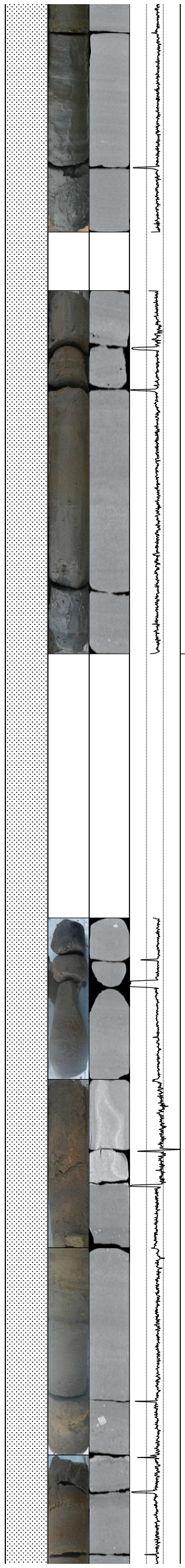

Beige laminated medium to fine silty sand. Occasional oxydized layer and of heavy mineral. Flame structure between 7,08 and 7,25 m. Layer of alveolus coarse sand (bioturbated?) between 7,98 and 8,10 m. Pore ice.

Depth (m)	Sampling method	Sample state	Sample name	Water content (%)	Salinity (ppm)	Grain size G	Grain size S	Grain size M-C	Consistency wl	Consistency wp	Consistency Ip	Consistency IL	USCS	Consol. kPa 25	Consol. kPa 50	Consol. kPa 100	C/H/N w	C/H/N p	C/H/N C	C/H/N H	C/H/N N	Radiocarbon dates 14C (BP)	±	Material
		Ud-F	13_04_520-527	24.1																				
		Ud-F	13_04_528-539	22.3																				
		Ud-F	13_04_539-550	21.5																				
		Ud-F	13_04_550-560	23.7		0.0	58.2	41.9	26.2				SM											
		Ud-F	13_04_572-581	22.2	5.9																			
		Ud-F	13_04_581-588	21.3		0.0	84.5	15.5					SM											
-6.00		Ud-F	13_04_621-632	24.2																				
		Ud-F	13_04_674-682	23.4		0.1	49.0	50.9	22.8				ML											
		Ud-F	13_04_682-688	23.4																				
		Ud-F	13_04_688-708	23.5																				
-7.00		Ud-F	13_04_708-718	15.1																				
		Ud-F	13_04_718-723	12.8		0.0	87.6	12.4	20.9				SM											
		Ud-F	13_04_723-735	26.2		0.0	51.1	48.9	23.5				SM											
		Ud-F	13_04_735-737	22.3																				
		Ud-F	13_04_737-747	23.5		0.0	40.7	59.3	24.8	18.8	6.0	0.8	CL-ML											
		Ud-F	13_04_747-761	23.2																				
			13_04_770-776	20.4																				
			13_04_776-787	26.4																				

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Depth (m)	Instrumentation	Stratigraphy	Image	CT (HU)	TI profile (HU)	Soil description	Sampling method	Recovery	Sample state	Sample name	Volume (%) Soil / Ice / Air	Water content (%)	Salinity (ppm)	Grain size G	Grain size S	Grain size M-C	Consistency wl	Consistency wp	Consistency Ip	Consistency IL	USCS	Consol. kPa 25	Consol. kPa 50	Consol. kPa 100	C/H/N w	C/H/N p	C/H/N C	C/H/N H	C/H/N N	Radiocarbon dates 14C (BP)	±	Material
-8.00									Ud-F	13_04_787-798		25.7																				
										13_04_798-810		25.3		0.0	70.9	29.1	25.2				SM											
										13_04_815-826		23.0	4.9																			
									Ud-F	13_04_826-839		21.7																				
										13_04_839-852		23.1																				
										13_04_852-859		22.1		0.0	69.7	30.3	13.9				SM											

End of borehole at 8,59 m.

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