

Borehole HLA-18/Tract 218

79-1303

Depth Below Sh. Feet	Meters	Cored Interval	USGS Samples	Lithologic Notes	Interpretation
6.4	2.0			Ice	
10'				Water	
37.0	11.3				
39.5	12.0	0-2.5'	2.5		Wisconsinan-Flaxman Fm.
40'		2.5-4.0'	4.0		Sangamon
44.0	13.4	4.0-5.5'	5.5-7.0	Sandy silt, interbedded with organic sand and detrital peat.	
		5.5-7.0'	7.0-8.5		
		7.0-8.5'	10.8		
50'		8.5-10.8'	13.0	Thin bedded micaceous clayey silt and organic clay	Offshore Marine
		10.8-13.0'	15.0		
		13.0-17.5'			
		17.5-20.0'			
60'	18.3	20.5-23.0'	22.9-23.0	Silty sand and silt	
		23.0-24.0'			
67.0	19.5	24.0-25.0'	26.5		
		25.0-26.5'			
		26.5-27.5'	27.5-29.0		
70'		27.5-29.0'	29.5-30.5	Clayey silt w/ thin lenses of v. fine sand and trace organics	
		29.0-30.5'	30.5-32.0		
		30.5-32.0'			
		35.5-37.0'	35.5-37.0		
77.5	23.6	40.5-42.0'	40.5-42.0		
80'		45.5-47.0'	45.5-47.0	Sandy silt with lenses of v. fine sand	
		47.0-50.5'		No visible ice	
86.0	26.2	50.5-52.0'	50.5-52.0	Olive gray silt	
90'		55.5-57.0'	55.5-57.0		
92.5	28.2	55.5-57.0'	55.5-57.0	Olive gray clayey silt with granules of chert, quartzite, black limestone, and some dolomite	Marine with ice-raftered mat'l. periglacial?
99.0	30.2	60.5-62.0'	60.5-62.0	Dusky yellow-green micaceous silt.	Offshore Marine
100'		65.5-67.0'	65.5 67.0		
		70.5-72.0'	70.5-72.0 ABC	No visible ice	
107.5	32.8	70.5-72.0'	70.5-72.0 ABC	Silt with laminae of detrital peat, interbeds of dark sand & large pebbled biotite schist.	Ice Island?
109.5	33.2	75.5-77.0'	75.5 77.0		
110'		80.5-82.0'	80.5-82.0	Sandy silt, clayey silt, w/ laminae of organic clay, bedding deformed	Offshore Marine
117.5	35.9	80.5-82.0'	80.5-82.0	Clayey silt	
120'		85.5-87.0'	85.5 87.5		
123.0	37.5	85.5-87.0'	85.5 87.5	Interbedded fine silty sand & med. granular sand	Nearshore
125.0	38.1	90.5-92.0'	90.5 92.0	Silty clay	Offshore
127.5	38.9	90.5-92.0'	90.5 92.0	Micaceous silt with a few granules, chert facies	Marine
130'		95.5-97.0'			
132.5	40.4	95.5-97.0'		Fine and coarse sand w/ clots of peat, interbeds of sandy silt.	Nearshore Marine
135.5	41.3	101.5-103.0'		Silt, gray-black, frozen, contains shell fragments	Offshore Marine (Basal Sangamon)
140'		110-112.5'			
147.5	45.0	110-112.5'		Silty fine sand, w/ interbeds of clean fine to med. sand, trace organics through out, frozen	Middle Pleistocene
150'		121.5-123.0'		contains v. thin silt partings	Nearshore Marine
160'		131.5-133.0'			
165.5	50.5	131.5-133.0'		Clayey silt, dk. gray, dry to moist, becomes plastic when wet.	Offshore Marine
170'		141.5-143.0'		shell fragments and pockets of black organics @ 142.5'	
178.5	54.4	141.5-143.0'			
180'		151.5-153.0'		Silty sand/sandy silt, dk. gray, fine sand with interbeds of sand.	Nearshore Marine
190'		161.5-163.0'		Fine sand, dk. gray, saturated when thawed.	
195.0	59.5	161.5-163.0'			
200'		171.5-173.0'		Clayey silt, gray blk. + contains some shell fragments.	Offshore Marine
204.5	62.4	171.5-173.0'			
210'		181.5-183.0'		detrital wood @ 182.5'	
220'		191.5-193.0'			
230'		201.5-203.0'		Silty sand, gray blk. fine angular sand is well sorted, contains seams of detrital wood	Nearshore Marine
240'		211.5-213.0'			
248.5	75.8	211.5-213.0'		Silty sand w/ seams of organic clayey silt.	Nearshore Marine or Thaw lake
250'		221.5-223.0'			
260'		231.5-233.0'		Abundant wood & shell fragments @ 230.5'	Nearshore Marine
270'		241.5-243.0'		Silty sand, fine to med. angular, ice coating on individual sand grains, numerous horizontal seams of frozen peat.	
280'		251.5-253.0'		Gravel lense @ 280.5'	
288.5		251.5-253.0'	251.5-253.0		
290'		261.5-263.0'	263.0	Clayey silt, dk. greenish gray w/ trace v. fine sand. thin ice seams up to 7.0 mm. thick with individual ice crystals to 2.0mm long & 2.5 mm thick. Ice seams inclined ±15°.	Offshore Marine
300'		271.5-273.0'	273.0	Slightly sandy clayey silt, olive gray with thin lenses of v. fine sand + occ. pebbles and occ. shell, trace organics.	
310'		282.0-283.5'	282.0-283.5	Clayey silt, olive blk. thinly bedded, contains occ. shell fragment + trace v. fine angular sand	
320'		291.5-293.0'	291.5-293.0	Same, contains occ. pebble.	
329.0		301.5-303.0'	301.5-303.0		
330'		301.5-303.0'	301.5-303.0	@ 329.0' gravel & wood abundant in wash. Silty gravelly sand, contains pebbles to 1.7cm, poorly sorted sand w/ 20% gravel, grades down into sandy silty gravel @ 329.0', gravel is poorly sorted, sub rounded to sub angular, contains ventifacts, mostly chert & quartz.	Beach
338.5		301.5-303.0'	301.5-303.0	@ 332.0' washing silty sand with abundant wood & gravel.	
340'		301.5-303.0'	301.5-303.0	Coarse sand, poorly sorted sub rounded to sub angular. @ 339.0' Clay, black w/ abundant shells	Offshore Marine

Preliminary