

Sample Description For Virginia Beach Geoprobe Site 61C 41

Depth	Lithology	Recovery	Description
0-4		90+	Possibly fill material. We are coring along side of an engineering drainage. Slope to our south shows signs of failure near the core hole. Large, 100 yr old oak trees appx 50 ft north of our location indicates the original land surface. No old soil horizon seen in this core.
5-8		75	Zone from 5-7 ft was dry and crumbly and would not stay in the barrel, so we re-cored and drove 3 ft w/ the 2 foot sampler. From 7-8 the material became much wetter, although not yet saturated. The material through the entire interval is similar. It is a fine sandy silt w/ leaf and stem frags common. Mica. Thin, sub-cm scale sandy lenses are oxidized bright orange. The bulk of the material is grayish brown.
8-10		100+	Saturation at 8.5 ft. 8-8.5 ft is similar to the last interval. At 8.5, the material becomes sandier. There is much free water visible in the liner. Around 9.5 ft, the material begins to have cm-sized silty lenses and changes color from brownish to grayish. Material at 10 ft is a gray, moderately well
10-12			Driller Note: This interval felt similar to the material from 9-10 ft. At 12 ft driving got harder.
12-14		75	Upper 0.5 ft of sample is a gray, clean, well sorted, fine to lower med qtz sand w/ DM common. No mica. Lower 1 ft is a gray, moderately well sorted, subangular to rounded, med to coarse qtz sand w/ DM and mica common. A faint odor of H ₂ S is detected.
14-20			Driller Note: This interval was similar to 13-14 ft. At 20 ft driving became easier.
20-22		100	Lost about 1/2 of sample during liner retrieval from barrel. The material is a gray, rounded to well rounded, lower v coarse qtz sand w/ v fine to fine pebbles common. DM and colored grains uncommon, and mica scarce. No H ₂ S odor. Much water leaked out of sample during retrieval.
22-25			Driller Note: Material felt similar to 20-22 ft. At 25 ft driving got much softer.
25-27		50	Lost much of sample during retrieval from barrel. Collected 2 jars. Lower portion was very liquid, the upper 0.3 ft was a plug of silty material. Jar 1 is from about 25 ft. It is a silty, shelly, rounded to well rounded, v fine to fine sand. Shell frags & whole bivalve halves of delicate shells are
27-30			Driller Note: Harder driving at 30 ft.
30-32		75	The liner split during retrieval from barrel. Collected 2 jars - one from each distinct zone in core. 30-31 ft is a subangular to well rounded, coarse to v coarse qtz sand w/ colored grains common. 31-32 ft is a slightly silty to moderately silty, subrounded, moderately well sorted, upper fine to med
32-44			Driller Note: Light to moderate hammering was required from 32-44 ft. Material feels similar to the bottom of the last zone. The last part of the 44-46 sample was a little easier to drive.
44-46		75	The upper 1/2 ft of material fell out during liner retrieval from barrel. Material is a silty, fine sand to sandy, fine silt. Mica is common. DM are uncommon. Small shell frags were in the shoe plug. Shoe matrix material is a slightly silty fine to lower med sand.

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46-52			From 46-47 moderate hammering was needed. 47-50 did not require any hammering (similar to that needed for the collection of the 444-46 sample). At 50-51 we hit another hard unit, and from 52-54, light hammering was occasionally required.
52-54		100	Silty fine sand to fine sandy silt, interbedded on a scale of 10's of cms. Fluid fills liner, but permeability is low. The siltier material is full of coarse sand grain-sized mica flecks.
54-60			From 58-60 ft drilling became increasingly more difficult. From 60-62, moderate to hard hammering was required.
60-62		70	Upper 1 ft is a slightly silty fine sand w/ the same large mica seen from 52-54, but much less common. DM are common. Lower 0.5 ft is a med sand w/ pink, yellow, and orange grains and DM common. Mica is scarce. At 62 ft a dense silty clay plug was found that was appx 1 cm thick.
62-64			
64-65.5		100	Gray, rounded to well rounded med qtz sand. Blue, orange, yellow, pink, and pale green colored minerals are very common. Mica and DM are
65.5-83.2			Driller Note: Going to push until we find something different. Probe refused at 83.2 ft.
83.2-84.2		80	83.2-83.7 is a shelly fine to med sand. Shell frags are subangular to subrounded. DM abundant, mica common, little shell hash. Lower 1/2 foot is