



Boring Crew: J. Leanderl (OCN), A. Baribout (GeoDesign)
Date Started: 8/10/14 Date Finished: 8/10/14
VTSFG H0863: N 085100.00 H E 1514300.00 H
Station: 15+20 Offset: -15.00
Ground Elevation: 221.5 N

Casing Sampler
Type: FJ SS
I.O.S: 4 in 1.28 in
Hammer Mt: 140 lb. 140 lb.
Hammer Fall: 30 in. 30 in.
Hammer/Rod Type: Auto/WHJ
Rig: CME 550K ATV CE = 1.5

Ground-water Observations (3)
Date: 08/10/14
Depth (ft):
Notes: None observed.

Depth (ft)	Strat (ft)	CLASSIFICATION OF INTERIALS (Description)	Reg (ft)	CE (ft)	Pen (ft)	Pen (ft)	Pen (ft)	Pen (ft)	Pen (ft)
2.5	2'	S1 (0.5'-2'): Medium dense, light gray fine to coarse SAND, little SIL, little fine Gravel, (angular), med. (ROUND) (ASHSTO W145 Classification: A-1-b.) Res. = 0.8 N			10-14-11 (25)	3.3	52.3	31.2	16.5
2.5	2'	S2 (2'-4'): Medium dense, light brown fine to coarse SAND, little SIL, trace fine Gravel, med. (FILL) Res. = 1.0 N (ASHSTO W145 Classification: A-1-b.)			5-5-5-6	5.0	22.8	65.6	11.0
5.0	2'	S3 (4'-6'): Very loose, brown fine to medium SAND, some (+) SIL, little fine Gravel (possibly from above), trace Rocks, med. Res. = 0.8 N (ASHSTO W145 Classification: A-2-4.)			3-2-1-2 (5)	21.2	15.1	51.0	33.0
7.5	2'	S4 (6'-8'): Sand; S40(upper 10"): brown fine to coarse SAND, some fine Gravel, little SIL, med (from drilling fluid), S40 (lower 6"): Gray and orange-weathering fine to coarse GRNCL and fine to coarse SAND, trace SIL, med (weathered Rock) Res. = 2.0 N S40 - (ASHSTO A-1-a (ASHSTO W145 Classification: A-1-b.)			7-13-35 (48)	12.0	35.0	52.0	12.1
7.5	2'	S5 (8'-10'): Very dense, gray with white, brown, and orange areas/weathering fine to coarse SAND and fine to coarse GRNCL (visible) trace SIL, med. (WEATHERED ROCK) (ASHSTO W145 Classification: A-1-a.) Res. = 1.5 N			31-22-44-71 (88)	8.4	62.5	27.7	8.8
12.5	2'	C1 (11.5'-15'): Very poor quality, moderately hard, highly weathered gray with white banding SLATE, with intrusions of quartz. Fracturing approximately 80 to 90° from horizontal. Strong reaction to dilute HCl in white bands.	C1	67 (0)		0.85			
12.5	2'	S6 (13'-13.1'): Refusal, gray fine to coarse GRNCL (visible), some fine to coarse Sand, little SIL, med. (WEATHERED ROCK) Res. = 0.1 N (ASHSTO W145 Classification: A-1-a.)			58/1" (2)	0.2	68.0	20.0	11.4
15.0	2'	C2 (13.5'-18.5'): Very poor quality, moderately hard, highly weathered, gray with white banding SLATE, with occasional banding of quartz. Fracturing approximately 75 to 80°; joints west and siltstone. Strong reaction to dilute HCl in white bands. C2S1 UCS (13.8' deep) 7,230 psi.				0.67			Top of Bedrock @ 13.5 N
15.0	2'	C3 (18.5'-21.5'): Poor quality, moderately hard, highly weathered to completely weathered gray with white swirls and bands SLATE. Fracturing approximately 80 to 90° from horizontal; joints siltstone. Strong reaction to dilute HCl in white bands.	C3	100 (53)		0.36			

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. If return flow not been corrected for hammer energy, CE is the hammer energy correction factor.
3. Water level readings have been made of times and under conditions stated. Fluctuations of ground-water may occur due to other factors than those present at the time measurements were made.



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22.5	2'	C4 (21.5'-25'): Very poor quality, moderately hard, highly weathered gray and dark gray with white banding SLATE, fracturing 80 to 90° from horizontal, joints siltstone. Strong reaction to dilute HCl in white bands.	C4	100 (0)		0.4			
22.5	2'	Notes stopped @ 23.0 ft							
25.0	2'								
27.5	2'								
30.0	2'								
32.5	2'								
35.0	2'								
37.5	2'								

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