Water Well Log

Strata Geological Services, Inc.
Sealy, Texas
830-242-3880

Well: HGCO Monitor Well # 11
Location: Kamuela South, Ranchero Rd @ Encino
Drillsite: Mr. Feathergill Wilkes, PO # 21
Driller: Mr. Jeanstinger
Rig Type: Air Rotary
Total Depth: 780' Completed 12-12-07

Depth	Scale	Lithology	Description	Effective Porosity % 10 20	Well Construction	Micro-graphs	Comments
0–2			0 - 2 FILL: 9 tan road gravel and black soil, Holocene				Upper Glass Rice Bdry @ 0' Holocene surficial Holocene
2–44			2 - 47 MARL & LIMESTONE: cream-9 gray alternating marl and thin bedded limestone, top of Upper Glass Rice				Elevation = 2.700'
44–79			44 - 79 LIMESTONE: 9 gray dolomitic biblical bearing limestone				DTD: N 10.00' @ 17° W 0.00' @ 17° Dual completion with two 2" PVC strings, form 0-350 sand 0-447 with sand, gravel packs and screens Upper Glass Sand and Houston
79–87			79 - 87 MARL & LIMESTONE: 9 gray alternating marl and thin bedded limestone, top of Upper Glass Rice				Set 20" @ 17' (not casing @ surface, set 17' AGL) 0-17' 20" 750', screened 350-750', gravel pack to surface, 0-447 sand, 447-525' Set 2" PVC 0-447, screen 525-780 Dual completion.
87–104			87 - 104 LIMESTONE: 9 gray limestone and thin bedded limestone, top of Upper Glass Rice				Top of Lower Glass Rice Bdry @ 87'
104–252			104 - 252 LIMESTONE: 9 gray limestone, 9 gray Ostrichina sp. fragments/bioclasts, top of Lower Glass Rice Bdry				Ostrichina texana Cerbula ? phosphate fragments sand Ostrichina texana sand sand
252–270			270 - 300 CALCAREOUS SANDSTONE: 9 gray well cemented calcareous silty fine sand, top of Top of Hamel Sandstone Bdry				Top of Hamel Sand @ 270' original water level upon geophysical logging @ 272'
270–300			270 - 300 SANDSTONE: 9 gray fine grained sandstone				
300–310			300 - 310 SILTSTONE: 9 gray siltstone				
310–320			310 - 320 SANDSTONE: 9 gray fine grained sandstone				
320–340			320 - 340 SILTSTONE: 9 gray siltstone				
340–350			340 - 350 FAUNOSTO: 9 orange silty sandy paleosol				
350–400			350 - 400 SANDSTONE: 9 tan to orange fine-med sand and sandstone				water sand
400–410			400 - 410 FAUNOSTO: 9 red-orange sandy sandy paleosol				paleosol
410–470			410 - 470 CLAY: gray clay, top of Hamrett Clay				Top of Hamrett Clay @ 470' Bentonite seal
470–490			470 - 490 SAND: 9 orange-white medium coarse grained sand and gravel, top of Houston Pay				Top of Houston Pay @ 490'
490–510			490 - 510 SAND: 9 orange-white medium coarse grained sand and gravel, top of Houston Pay				
510–570			510 - 570 SANDSTONE: 9 gray fine grained sandstone and minor sandy sandstone				
570–590			570 - 590 SANDSTONE: 9 gray fine grained sandstone and minor sandy sandstone				TWDtypo TD.0
590–610			590 - 610 SANDSTONE: 9 gray fine grained sandstone and minor sandy sandstone				
610–780			610 - 780 SAND & GRAVEL: 9 orange-white medium coarse grained rounded gravel bearing tan sand and sand				base of road
780–780			780 - 780 SHALE: black-dark gray petroliferous shale, top of Pennsylvanian Shale				Hydraulic conductivity is impeded in some areas of the formation throughout the Houston. TWDtypo TD.0 gpm TWDtypo TD.0 Top of Pennsylvanian Shale @ 780'