#29932

Layne-Western Company, Inc.

Layne Western KC – Steve Dailey – 913-321-5000

Country Club Dubuque County

Drillers Log: Thunder Hills Well #2

15 ft of 16" CASING (SURFACE)

0-14 – TOPSOIL-CLAY
14-90 – GRAY-Buff-Limestone
90-115 – GRAY-Green-Brown Limestone (Shaley)
115-125 – Green-GRAY-PURPLE SHALE
125-210 – Green-GRAY SHALE-GRAY Limestone TRACES
210-315 – GRAY SHALE-Limestone
315-365 – Light-DARK GRAY SHALE TRACES Limestone
365-375 – DARK GRAY Limestone TRACES Black Green SHALE
375-390 GRAY Limestone
490-495 – GRAY Limestone TRACES Chert-Quartz
495-515 – Brown Sandy Limestone-Chert-CLAY
515-540 Sandy GRAY Limestone-Chert
540-590 GRAY Limestone-Chert
590-600 Light GRAY Limestone
600-690 Brown-GRAY Limestone Green SHALE
690-745 GRAY Limestone-Green SHALE Sandstone
745-760 GRAY-Buff Limestone TRACES Sandstone
760-1025 GRAY Brown Limestone-Chert
1025-1105 Sandstone-Trace Limestone Shale
1105-1150 GRAY Lime Dol-Pink

Penetration Rate

1070-1075 = 11 min
1080 = 10 min
1085 = 5 min
1090 = 8 min
1095 = 5 min
1100 = 6 min
1105 = 6 min
1110 = 25 min
1115 = 8 min
1120 = 18 min
1125 = 19 min
1130 = 17 min
1135 = 11 min
1140 = 16 min
1145 = 13 min
1150 = 10 min

Charles Cate. – Engineer

LW-331A

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Drillers Log - Thunder Hills Country Club.

1150 - 1205 - Light Brown Limestone - Traces Chert

1205 - 1225 - light gray - Pink Limestone
1225 - 1240 - gray - pink Limestone - green Sandy Limestone
1240 - ~~1285~~ 1280 Gray - Green Limestone Sandy - Trace Black Shale
1280 - 1330 - Light Brown - gray - green Limestone Sandy
Traces Black Shale
1330 - 1450 - White - green - Sandstone -

~~1152~~ 1142 ft 10" Casing

Swl. 455