

BIT # 6 SMITH SDS 12 1/4" (2*12,1*13)

The cement was tagged at 1325 ft, and the cement and casing shoe drilled out. At 1450 ft a L.O.T. was performed. During the drill run of 627 ft, high ROP values exceeding 200 ft/hr were noted, a WOB, 25 klbs RPM, 100, kept steady.

At 2017 ft, high torque values and some overpull (185 klbs) were encountered. The bit was pulled out at 2067 ft.

BIT # 7 SMITH SDGH 12 1/4" (3*20)

After reaming down from 2018 ft, the drilling rate was very slow, high torque values and over-pull was again observed. The bit was pulled out at 2107 ft.

BIT # 8 SMITH F3J 12 1/4" (3*13)

During the bit run, WOB, 25-35 klbs, RPM, 100. The ROP varied greatly. In the initial phases of the run, drilling rates averaged 125 ft/hr to a depth of 2240 ft, slowing down appreciably to an ave. 35 ft/hr between 2240-2400 ft. From 2400 to 2670 ft, ROP values averaged 15 ft/hr, occasionally dropping as low as 5 ft/hr. This trend continued throughout the run with sections often exceeding 200 ft/hr and dropping back to 35-50 ft/hr. at other points. An average ROP over the entire run was 70 ft/hr.

BIT # 9 SMITH DSJ 14 3/4" (2*16) + UR 17 1/2" (3*12)

Run in to 1320 ft and reamed down to 2066 ft; WOB, 5 klbs, RPM, 50. Reaming slows at 2062 ft and the bit is pulled out at 2066 ft.

BIT # RR9 (2*26) + UR 17 1/2" (3*13)

Run in with new under-reamer. Very slow ROP and high torque values for first 20 ft. ROP increases during run. WOB, 5-10 klbs and RPM, 70-80. Pulled out bit at 3033 ft due to high torque values. One cone lost off the under-reamer.