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AUGI:0 1990

NEBU PM SWD #1 9-5/8" Cement Sundry (Continued)

OIL CON. DIV.

7-03-90 RIH, set 30,000# on liner tie back sleeve at 3608', load hole with 550 bbls water. Close pipe rams and pressure test liner pack off to 1500 psi. Pressure after 30 minutes - 300 psi. Bleed off pressure, open pipe rams. Pick up off liner hanger, close pipe rams and pressure up to establish injection rate. Pressure to 2400 psi, shut down, pressure dropped 200 psi every 10 minutes, POOH, pick up bit #10 8-3/4 RT Smith Tool Company SVH (jets: 22-22-22). TIH, tag wiper plugs at 5830', set 50,000# down and hang remainder of drill pipe weight on 13-3/8" RTTS at 53'. Back off bypass valve on top of 13-3/8 packer. Lay down 2 jts drill pipe, TIW valve and bypass mandrel. Close blind rams. Rig down rig.

7-04-90 Move rig, water tank, and doghouse. Dig 8' deep x 7' x 22' hole on rig side of cellar; put 70 yds. 3/4" road base gravel in hole and compacted. Rig back up. Pick up 2 jts drill pipe and 13-3/8" RTTS bypass mandrel sub. Screw on to by pass mandrel. Release 13-3/8" RTTS and TOOH. Rig up wireline. RIH with 4" gun, shoot 2 holes (0.4" - 0.45"), 180° phasing at 3700', POOH. Pick up 13-3/8" cement retainer and TIH to squeeze 9-5/8" liner.

7-05-90 TIH with 13-3/8" cement retainer, set at 3568'; top of liner at 3608'. Load casing with 80 Bbls water, put 500 psi on backside. Pressure test drill pipe, squeeze manifold and lines to 3500 psi, held OK. Establish injection rate of 1.5 BPM @ 800 psi. Squeeze liner top with 300 sx (345 cf) 15.8 ppg Class G with 2% CaCl₂. Displace with 43.9 Bbls water. Well on vacuum, let well suck 42.7 Bbls of displacement, hesitating every 10 minutes. Was able to perform walking squeeze on last 1.2 Bbls displacement, final squeeze pressure - 2000 psi. Squeeze total of 222 cf. Sting out of retainer at 10:45 a.m., 7-04-90. Reverse out 7-3/4 Bbls cement to surface. POOH with setting tool. WOC 12 hours.